How to Teach a Country School

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HOW TO

GRADE AND TEACH

—A—

COUNTRY SCHOOL.

By JOHN TRAINER,

Superintendent of Schools, Macon County, Illinois.

"To give system and efficiency to the work in the District Schools is of paramount importance."

BALDWIN.

22605-2

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JOHN TRAINER,
1885.

To the Teachers
in the
Rural and Village Schools
of
Macon County, Ill.,
Who have so ably and willingly shared
the burden of self-imposed labor
entailed by the attempt to
Grade the Schools of this County,
and
who have given valuable encouragement and sympathy in carrying out
the plans here formulated,
this Volume
is most respectfully dedicated by
the Author.

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PREFACE.

The question, "What can be done to improve the condition of the country school, has been ably discussed from the platform of our educational gatherings for many years; school journals have devoted pages to this important question, teachers have labored from the first to improve the system of instruction as found in these schools of the people; legislation has been invoked in innumerable instances to satisfy the demands of a practical constituency; superintendents, of both county and state, have recommended plans for the solution of the problem; and National Bureaus of Education have issued circulars attempting to solve it.

For a time these discussions and suggestions recommended special helps and aids; they were all good so far as they proposed to improve the rural schools, and aided very materially in giving teachers better methods of classification, and instruction; thus was the question answered in part; many of the country schools were improved by these discussions, but not all of them.

Within the past few years these discussions having profited by the attempts to improve the rural schools, have very materially changed the general drift of opin-

ion, from that of a desire for special helps, to a generalization of all the details offered in past years, and finally, within the recollection of the youngest teacher, the answer to the conundrum has been flatly given, "Grade them."

Immediately the question, "how shall we grade the country schools," was propounded, and as quickly, men have attempted to answer it. The writer has no criticism to offer upon the plans proposed by others, but desires to be understood that he heartily endorses all suggestions leading, or tending to the solution of the last problem; the answer to the first question has been fully given in the command, "GRADE THEM!"

To answer the enquiry to this last command, is the object of this book; in the hope that the plans here laid down, may be suggestive of some better system, to be developed in the near future, the author subscribes himself,

A COUNTRY TEACHER.

DECATUR, Ill., July 1, 1885.

INTRODUCTION.

Present Condition of the Ungraded School.

It is not the province of this book to discuss the past condition of the rural schools, but on the other hand to deal directly with their present condition, with a view to offering plans of work that shall improve them. With this intention the writer wishes to notice the actual condition of the country schools, in order to have a fair understanding of the obstacles in the way of grading them.

When we reflect that the rural schools of our country provide elementary instruction for more than one half of our school population, and that a large majority of this number never enter the course for higher instruction, it seems strange that a people so fertile in invention and adaptation of means to the object to be obtained as ours, should be content to adhere to the typical rural school so closely as they have done. In making this statement we do not desire to say that there has been no improvement, for improvement has been shown all along the line, from the rude log school-house which contains the children of the rugged clearings among the broken hills and mountains of the forest, to the handsome frame or brick buildings of the broad and fertile prairies. That there has been progress cannot

be disputed, but that it has kept pace with the advancement of the present age cannot be clearly proven.

What, then, is the actual condition of the average country school?

Accepting the general concession of prominent educators, that all the surroundings of the school should be as pleasant as possible, the writer begs no apology for considering the actual condition of school grounds and school buildings throughout the rural districts; as he proposes to treat this topic from a practical standpoint, he quotes from his note book, the actual condition of an average school as noted from actual visits.

"THE GROUNDS."—The grounds were fenced at some time in the past, but the posts have rotted from their contact with the earth, and about two-thirds of the fencing has toppled over for the children and the stock of the neighborhood to trample upon; many of the boards are missing, having been used for "ball paddles;" for kindling, by the teacher, by the boy who gets to school earlier than the teacher, and by the enterprising eastern man who goes west in the "prairie schooner." The part that is standing, being convenient of access for the "Young American's" jack-knife, has been whittled into fantastic mouldings of different patterns, or carved into unsightly hieroglyphics and phrases which should cause the thoughtful person to shudder for the morals of those innocent beings who are compelled to gaze upon that which defiles and destroys the soul. * * * A shade tree stood on the east side of the house, and was thrifty and vigorous when Miss M. taught school; but the two last teachers have permitted the restless boys to girdle and scar it with the jack-knife until there is

but one narrow strip of sapwood left for the passage of its "life-blood." It has lost its vigor, and must soon stand with broken limbs, a sad memento of what it might have been, until the "big" boy, grown stronger than it, pulls it down and laughs at the weakness of his fellows who were unable to make it yield. * * * A well is found in the yard, but the pump has lost its priming, is filled with pebbles and leans to one side of the curbing; this latter is broken in one or two places and crumbling into the water below; a boy informs us that "there is a dead rabbit and two toads in the well, so we can't use the water, and so we *pack* it from Mr. W's." * * * There are no walks to the outbuildings, but two well beaten paths indicate that much mud has been carried from its place by the shoes of the pupils. * * These buildings were once ornamented with triangular openings in the gables for the admission of light, and with a good shingle roof from which protruded a plain ventilator. The triangular openings have been lengthened to the ground, by splitting the vertical weatherboarding and removing it from the framework; many of the shingles have been broken off at the projecting ends and others driven through the roof by the heavy shoes of the farmer boys who show their agility by scaling the building and leaping from its roof to the ground; the moulding is broken from the ventilator, and one side of it contains an obscene picture rudely made by the use of the red "keel-stone" found in the vicinity; the door is broken from its hinges and stands in one corner, and must be placed in the opening to screen the occupant from the passer-by on the public highway; the seats have been covered with filth and

cannot be used; the floor has a missing plank, and is filled with excrement. * * * Remnants of a wood-house remain in the shape of a part of the floor and the sills, completely covered with the slack from the coal piled upon them during the past winters; the house had gone the way of the disappearing fence, well platform, and other outbuildings.

THE HOUSE—*Exterior.*—The house is well protected by good shingle roof which replaced the old one last summer; the flue barely protrudes from the "comb," as the bricks which had carried it above the roof, had been knocked off and lay part way down the side of the roof; it had been the target for the ball in the play of "ante-over," and for the brick-bats taken from the broken wall at the north end. The lightning-rod was broken from its first point, and the heel marks and mud along the rod clearly indicated the means of climbing to the roof to secure the lodged ball. Dozens of names are written in pencil, upon the north wall; obscene couplets are inscribed in a mixture of paint and script, indicating the culture of the writer to a certain degree; the wall beneath the east windows clearly told that the teacher bolted or propped the door shut upon Friday evenings, climbed out of the window, and reversed the action on Monday mornings by climbing into the room and removing the bolt or other fastenings. One of the door-panels was broken and splintered from the stout kick of "Bill Muscle" last winter, when the boys fastened him out at noon.

Interior.—The ceiling is smoked and covered with paper balls of all sizes from that of the dimensions of a small bean to that of the large "quid;" the walls were broken

near the door and covered more or less with grease, "apple-sass," and "pumpkin-butter;" the east wall contained the remnants of two of Pelton's Outline Maps; (the rollers were missing and they hung diamond shaped by means of the faded binding;) one of these maps was inverted and tacked over a window from which a pane of glass was missing—the map flapping in the air as it entered the room when the door was opened (there was no other means of getting air, as the lower sash was nailed down, excepting the one used for egress and ingress, and the upper ones were stationed just as the carpenter and the painter had left them;) the west wall contained a picture, cut from Harpers' and pasted upon it by lumps of chewed bread placed at the corners; the north end had several ball marks, and a large quid of tobacco staring at the visitor; the motto "Welcome," had once occupied the space over the door, but now the evergreen had dropped from the pasteboard letters, and some of these were out of place, or suspended by one corner; the windows were conspicuous for the absence of shades and for the presence of dust and spider webs, except the lower row of panes, where the inmates had rubbed off the dust by using the sleeve or the hand (?)

The stove-pipe was too short, and in order to supply this deficiency, the ornamented feet of the stove were placed upon bricks, beneath them to the depth of four, resting upon the wide surface; the stove door was broken from its hinges, and was removed from its place by passing the poker through its ventilator, and placing it upon the floor during the process of replenishing the fire; the furniture was of the Old "76" style, being made up of heavy angular desks, each containing two

legs, and each bound to the other by a heavy two by six plank bolted through the center of the row at right angles with the desks; the faces of these desks were a study within themselves; many contained holes cut "in time of books," capital letters, diagrams, etc., too numerous to mention; the teacher's desk was made from heavy lumber and boxed in the form of an old fashioned meal chest; there were no drawers in it, and its only receptacle was beneath the lid which opened upward and was hinged by means of strap-hinges to the rear edge, thus necessitating the removal of every object before the lid could be raised; a broken globe stood in one corner, one leg broken from the tripod, and the brass meridian warped out of shape, the globe itself standing with the pole to the zenith, evidently so adjusted by some of the children. In another corner stood a dusty collection of faded paste-board cards, about twenty by twenty-eight inches, labeled "Mott's Modern Business Cards;" whatever good there may be in them was left to the dust, and to the spiders. Beside the teacher's desk stood a walnut box about eighteen inches high, and twelve by twelve at either end; it contained a drawer filled with two or three dozen soiled stereoscopic views; a double set of lenses had once occupied the circular openings at the top of the box, and a lid, broken from its hinges lay upon its top; the teacher said that it was intended for a stereoscope, but it was out of repair somewhat; he said that it was accompanied by a half dozen large volumes descriptive of the hundred views, but that the boys had carried them away and he did not know of their whereabouts.

A walnut case stood against the back of the teacher's

desk, and contained the remnants of what had once been a district library of forty-two volumes; this library was made up of the unsold books published by the proprietor of an agricultural paper at Albany, New York, and consisted of heavy treatises upon the chemical properties of our most common manures, of foods for different kinds of stock, of mildew in the grape, of house sanitation, of flower and house gardening, of seed time and harvest, of the care of poultry, of the diseases of sheep, of butter making and the care of milch cows, of the glanders and horse distempers, etc. Not one single book on the list would entice any pupil to read it, from their very titles themselves. Of the three or four found, but one remained intact, the others being more or less torn, and containing wide pencil drawings of nameless animals, hippogriffs, and even the child's idea of the appearance of Satan was faithfully delineated. * * * * A blackboard four by six feet and too high to be reached by the primary pupils occupied a space on the north wall; there being no crayon in sight and the board appearing to be dustless, the teacher explained that he had not used any chalk in this school, but thought he "should get a box when the holidays were over and the big boys and gals came in."

NOTES.—The above description of the house and grounds is not exaggerated, but taken directly from the notes made upon the premises during a first visit to the school. A description of the same house and grounds is presented at the proper place, but the notes were made four years later, and by the same visitor.

In justice to the county from which the above school has been selected, the writer would say that many of

the school grounds and buildings were in excellent condition, generally speaking, while there were a few in poorer condition in some of the special details; especially was this the case in connection with the water-closets. *A few schools actually having no such buildings.*

(We here present a faithful copy of the private minutes, made up during the visit for the day; dear teacher, did you believe that such a state of things could possibly exist in an old settlement in any community within the boundaries of the Union?)

RECORDS.—On being asked for his register of daily attendance, the teacher lifted the lid of the desk, upsetting his ink and throwing his pen, paper, and a work on law to the floor, and drew from its contents a sheet of soiled foolscap, roughly ruled and upon which was found the names of his pupils with an "X" opposite their names in the proper space for the attendance record; the X's not occupying the spaces for the past two or three days he was asked to explain, and did so by saying that he usually made up the register for the week on Friday evening; on enquiry we learned that he kept this paper for no other purpose than to keep his schedule as clean as possible, and that he destroyed the paper as soon as it had served its purpose; no register could be found and there was no way of determining what persons had preceded him except through the recollection of the brightest pupils; however he said that the children told him that "Ruth Cline had taught there the year before." In answer to our question concerning the presence of some record of examinations or files of such papers, he said that he had

not heard of any about the house and appealed to the children to obtain the answer, "I don't know what you want;" by way of explanation he remarked that he had "often thought of holding an examination for my big girls in geography, but I did not think of the paper when I went to town." (Before leaving we learned that he went to town regularly every Saturday.)

THE RECITATION.—The first class called after our entrance was the Fifth in reading; the teacher simply said, "Mary, your class may read," when Mary, followed by four girls and one boy, passed awkwardly to the recitation line (a crack in the floor of the rostrum,) and facing the school, each in turn read a stanza of "The Mariner's Dream;" no questions were asked, no explanations given, and no one was helped except when a pupil halted in the reading, the whole class would loudly pronounce the word for him. The class soon *finished* the selection and the teacher looking at his watch said, "the class may turn to page 343 and we will read the selection read yesterday." We suggested to the rising girl that she read to a period, and then the class might want to consider it; she read to the end of the paragraph and drew her breath but once in the time; a hand went up and in explanation the boy said, "she did not stop at Hindoostan." Finding that some of the pupils knew what a period was, we tried reading to a comma in turns; then we tried reading to first pause and naming it, the next in the class beginning without interruption; the scare being worn off we asked the class what was meant by "Abensina," in "Obidah, the son of 'Abensina, etc.;" one of the girls thought it was "a place in Hindoostan," the class agreeing to this;

to what is meant by a "caravansary," they agreed that it was "a kind of wagon;" they had no idea of what was meant by "pursued," "vigorous," and "animated," and said that "plains were used for slicking wood;" "incited means tried by a jury;" no one was able to define valley, or hill, but said they knew but could not tell; to the question "what is meant by, he saw the hills gradually rising before him," one girl thought that there was an earthquake and the hills rose up as he came to them. By this time we were getting well enough acquainted to talk with each other quite freely, and we returned to ask if any one had a dictionary; the boy quickly spoke, saying, "Aunt Scynthia has one and she says I may have it if I will bring it to school, but Pa says I have no use for a dictionary yet." One of the girls slyly said that she "saw one at Arthur's store last winter and that it was just chuck full of pictures." Other members of the class were silent. We suggested that possibly we were running over the program time, but the teacher said he had no program as it could not be used in his school, and to the suggestion that the small children would need to recite, he replied that it did not make any difference, as his Fifth reader class was the most interesting; by gentle hints we succeeded in getting him to dismiss the class and call the next one; "Jim, your class may read," brought out a First reader class of three members; in order to be fortified we enquired how many minutes he devoted to this class, and received the following, "usually about *five*, but sometimes not so much;" Jim further explained that "we did not read yisterday at all." We thought so when we heard him; it was a constant halt, with the

finger on the word, and a constant telling process all the way through the class; no blackboard work, no slate work, no preparation for the new words of the lesson, no explanation, no conversations as to meaning of sentences, words or phrases—simply a senseless repetition of words, nothing more. And so it was through all the reading classes; lifeless, listless, dead work. "My God, is there no help for the country school!"

The work was but little better in the other branches, the only difference being that the teacher questioned the classes by using the questions in the text books; to illustrate, he repeated the questions in Geography in the exact order found in the book, and as the children could answer but few of them, he would look at the map, or the text, and read the answer from the book; when a pupil or pupils could give the expected answer, he or they answered abruptly, or in concert; the same was true in United States History, and in Arithmetic; there was no grammar in the school, and the teacher explained this with the statement that his pupils did not want to study it; there were four persons old enough to study history and thirteen who should be studying Geography; all the pupils in the school had a spelling book, (those just beginning in the First reader as well as those in the Fifth reader.) A few had copy-books, but they had not "written for a day or two as I had not time to set the copies," was the answer; to the question "why do not all write?" he replied, "oh, the most of them are too little to write, and the rest do not get copy-books." "Do you have a regular time to write every day?" "We do not write every day; the pupil just writes when he

has time, and when I get time to set the copies; they write too much and waste the paper when I keep them in copies; this is why I do not ask them to buy books containing copies, for they soon fill a book and then the parents grumble at the expense." To the statement that we thought his First reader pupils should learn to write, he replied, "they are too little to write and must print until they get through the Third reader."

By some adroit questioning during the afternoon, and after dismissal, we succeeded in noting the following as his classification:

PRIMARY DIVISION.

No. in First Reader	12	No. in Penmanship	0
" " Second "	6	" " Number work	0
" " Spelling	18	" " Miscellaneous	0

INTERMEDIATE DIVISION.

No. in Third Reader	7	No. in Penmanship	2
" " Fourth "	5	" " Arithmetic	12
" " Spelling	12	" " Geography	1
" " Language	0	" " Primary History	0

ADVANCED DIVISION.

No. in Fifth Reader	8	No. in U. S. History	3
" " Grammar	0	" " Spelling	8
" " Geography	6	" " Penmanship	5
" " Arithmetic	7		

NOTES ON ABOVE.—1. It will be noticed that none were pursuing the study of numbers in the Primary Division; it should be stated that *four* of the Second reader pupils had a practical arithmetic, and that the two other members including each member of the First reader class possessed a primary arithmetic and were

assigned regular lessons each day; no writing was required in this division, but pupils were permitted to print if they desired to do so; under the head of "miscellaneous" we expected to find exercises in common things, such as learning the days of the week, of the month, points of the compass, time by the clock, directions and distances to known places, school ground geography, repeating easy maxims, etc. But one slate was found in the hands of a member of this division; no work was given them outside the regular text-book routine. No language work was done in the school; but two were permitted to write from the intermediate division, while ten from this grade were not required to handle the pen; but one studied geography, while there should have been at least four; none were pursuing the study of primary history, while at least five should have done so.

None were studying grammar, while eight should have been found in this class; two were missing in geography and one in arithmetic; the teacher explained that he could not get them to take it as they did not like it; five were missing from the history class and three were too "big" to write.

The number enrolled was thirty-eight, and the number present twenty-four; *over thirty-six per cent. of the enrollment were absent;* the day being a pleasant one the teacher said the attendance was better than usual.

Here is the number of classes heard in this school:
Arithmetic, 8; U. S. History, 1; Language, 0.
Geography, 4; English Grammar, 0; Spelling, 5.
Miscellaneous, 0; Penmanship, 0; Number work, 0.

Eighteen classes in four branches! Had he pupils in

all the branches he would have had over forty classes. (The writer has found as high as forty-seven classes in a country school, and all to be heard each day.)

The cases cited above are extreme ones so far as the number of classes is concerned, but about average for the branches pursued.

THE DISCIPLINE.—The discipline was all that could be desired by the most inveterate scold! The teacher complained that his scholars were worse when he had visitors, and stated that he disliked to reprimand when any one was present. There was no regularity or system in calling or dismissing the classes, none in calling or dismissing the school; pupils came in as they passed out—*as they pleased and when they pleased.* The whispering was intolerable; pupils talked loudly and constantly about everything except their school work; pupils of all grades passed promiscuously and with freedom to all parts of the room for different purposes; the teacher claimed that he had whipped a great deal when he first came into the school, but that he now had them under control and did not need to do so as frequently as formerly: (Several well worn rods lay between the library case and the walnut desk) two boys were sent to Mr. Green's for a bucket of water as "books took up" at noon, but they did not get back until the dismissal for recess at 2:30, and then the bucket was but half filled with water, and that contained many broken pieces of grass stalks and pieces of weeds. The children crowded around the bucket and soon consumed the water, leaving the floor wet and muddy where they trampled. During the recess hour the pupils lounged upon the tops

of the desks in ungainly positions, and chatted very loudly about the neighborhood news, etc.

By the time the teacher was ready to dismiss his school, its members were ready to spring to their feet with hats and bonnets in hand and prepared to see who could shout the loudest, or get out at the door first. The teacher's actions told clearly that they were but transacting the regular daily routine work of that school, and possibly in a more orderly manner than usual.

Other items might be given but we desist; suffice it to say that we found a few schools in worse condition than this one, and about two-thirds in the county visited somewhat better in many respects, *but none thoroughly graded;* a few were found in excellent condition as compared with the example given above, but none so good that they might not be improved by the judicious supervision of a competent officer, aided by some systematic mode of classification and examination.

As a rule our laws require but little supervision on the part of our school officers; their duties are laid out in the shape of clerical work, compiling statistics of a general and of a special nature, in looking after the accounts of inferior officers, and in the examination of teachers. Supervising officers have given more attention to the organization of our vast commonwealth into districts, to the building of school-houses, to the distribution and management of moneys, to the care of school property, than to any internal work of the school-room.

All of this has been appropriate, and, in its place, should precede the organization of the working forces of the school; these measures were necessary from the first, as in the building up of a state school system all of these

preparations were absolutely necessary, as the foundation of a successful system that should furnish means and money to support such a vast outlay of expenses in the preparation to furnish the people with our free schools. These measures go but to the door of the schoolroom and thus far have failed to step inside and say what shall be the course to pursue. The house is furnished, usually, at first with all that is needed to teach a first-class school; the desks are all that can be desired, the heating apparatus is perfect; the chances for ventilation are good, if properly managed; the daily register is furnished, if the teacher asks it; wall maps are readily obtained; a globe may be had at slight expense; a dictionary is furnished, provided the teacher makes the people and the children feel that they need one; in fact, there is but one thing lacking, and that is proper and effective SUPERVISION; GIVE THE SCHOOLS A THOROUGH SYSTEM OF SUPERVISION THAT SHALL TEST THE WORK OF ALL CONNECTED THEREWITH, FROM THE STATE OFFICER TO THE CHILDREN, INCLUSIVE, AND THE BEST OF RESULTS MUST FOLLOW.

OBSTACLES TO BE OVERCOME.

Let us candidly look at the obstacles to be met in the inauguration of anything like a thorough system of school supervision; if by carefully considering these obstacles we may devise any plans for overcoming them, then we have successfully met them, and are able to substitute something better in their stead. The obstacles are about as follows:

1. A school of both sexes, and of all grades from the primer to the sciences, and the higher mathematics.

2. The entire absence of any record of the progress of the pupil, of the classification of the school, and in some cases not even a daily register of attendance.

3. The irregular attendance of the pupils brought about by the peculiar surroundings of farm life, the distance from the school, inclement weather, poor teachers, indifference of parents and guardians, absence of attractive school rooms, and above all an entire absence of anything like systematic incentives to school work, or to progress.

4. The frequent and constant changes of teachers, caused by the want of professional skill, by the constant incentives held up to him to do something of a professional and permanent character, and thus causing him to make teaching a "stepping stone" to that profession.

5. The poor salaries paid in many districts fail to call out the talent of the county and places the mediocre at the head of the school.

6. The want of professional training for the duties of the room on the part of the teacher is encouraged by the directors and school boards by the common saying, "anyone can teach our school," and the consequent low salary offered.

7. The underbidding of teachers themselves, putting a premium upon "cheap teachers," thus supplanting the best talent in the calling.

8. The more permanent positions in the villages and the cities are making a constant drain upon our number of ambitious and progressive teachers.

9. The want of proper professional reading among the country teachers, in the shape of good journals for

teachers and books devoted to methods of teaching, and discipline. (This is occasioned in part by the absence of the teachers' library at the county seat, and by the non-attendance of teachers upon the annual or special institute.)

10. The indifference of school officers to the needs and wants of the school room. Their conspicuous absence from the school during the whole year, tending to make both teacher and pupil careless in the execution of many important details.

11. The indifference of parents to the prosperity of the school in general; it is not uncommon for parents to fail to visit the schools for years in succession; indeed many of them must admit that they "have *never* been inside the school house since it was built."

12. The frequent changes of text books is a detriment to the schools where a course of study is not closely followed, and that by the topical method of studying, and of teaching.

13. The constant removal of tenants from district to district tends to mix the texts more and more, and to keep their children from the schools a great portion of the time; in many cases where these poor people are required to purchase new books in order to enter the school, they fail to furnish their children with proper texts and are thus debarred from school privileges.

14. The varying length of terms of schools is a serious drawback; the state law usually provides for a minimum number of months taught in the rural school; the time taught in a given district is then left to the whim of the board of directors and ranges all the way from the minimum required to ten months each year.

Schools being of varying lengths, are opening all the way from September to May. Pupils attending these schools must make different degrees of progress. There can be but little uniformity of work while this state of affairs exists.

15. The notion prevails among weak teachers, the pupils, and the patrons, that there must be a uniformity of texts or else the child cannot enter his classes successfully. This causes an enormous outlay of private funds annually for extra books alone.

16. Teachers coming directly from the rural districts have no ideals above those of their predecessors, and are unable to organize or classify their schools with anything like a well-balanced course of instruction; they are unable to use any apparatus that may be at hand, and suffer it to be destroyed by ruthless hands that know nothing of its value.

17. The traveling canvasser with some useless piece of furniture, apparatus, or chart, goes from district to district, and by his insinuating language backed up by flattery and false statements, succeeds in robbing the schools of money enough to furnish the whole state (ungraded schools) with all the apparatus and school helps needed.

18. The unbalanced education of the pupils is a serious hindrance to anything like uniformity in the present school work. Farmers have the notion that the "three R's" are all that their sons or daughters need in their education, and that "if they can spell well and figger in the head, it is really all they need." This notion being imparted to their children, leaves the selection of other studies to their own tastes, or peculiar fancy,

and as a result, many of our bright boys and girls do not even pursue the study of some of the important branches; it is a fact worthy of note that the boys will usually omit grammar and the girls will never touch United States History. One pupil will omit one thing, another will omit another, and thus the whole school becomes unbalanced in its attainments.

19. The teacher, having no guide to follow, or test applied to himself, soon selects and rides a hobby to the detriment and neglect of other branches. We have known teachers to spend the whole forenoon upon arithmetic and then rush through the afternoon's work of *six* branches, stopping at frequent intervals to assist the big boys in the solution of a difficult problem.

20. The conscientious teacher having no guide for the selection of the practical in education, devotes as much time to the unimportant details of the text as to the practical, thus throwing away much valuable time.

21. Pupils select some branch and pursue it as a study for years, because they admire it. We have known a large number of cases where pupils had pursued the study of text book geography for *eight* years, and yet an examination revealed the fact that they knew no more of the important places in the world than they did of the uninportant ones. Their knowledge in this branch was but a medley of isolated facts gathered from the question and answer process, beginning every term with the first question in the book, and going as far as possible during the term, only to repeat the same process the next term.

22. With all of this devotion to special subjects it is not infrequently the case that classes must begin at

the first page in the book and take everything so far as they may advance during the term, and then be compelled to go over the same ground next term, never completing the book.

23. Parents know nothing of the progress of their children, owing to the want of regular statements at certain intervals from the teacher; parents have a right to know of the progress of their children and should demand it; but how can the teacher furnish it so long as he has no well defined purpose in view or has no test to apply to his work?

24. The election of members of the board of education not qualified for the discharge of their duties is an ever present source of mistakes and neglect. The writer has known of boards serving for years in which no one could sign his name, but each was compelled to make his mark (his X mark) when signing orders for the teachers' pay or for the necessary contingent expenses.

25. The unwillingness of directors to take hold of and initiate any thing "new under the sun." Any departure from the usual method of doing things is looked upon with suspicion and unfounded objection.

26. The inability of many teachers to understand or comprehend the necessity of introducing a course of study into the several schools is at present quite a drawback to the intelligent discussion of the subject in the county districts.

27. The want of confidence on the part of the supervising officer in his ability to carry out any thing of a systematic character, under the impression that he will either fail or stir up opposition, is a hindrance that lies in the way of radical reform.

28. The extensive field to be supervised by a single officer is so great as to make many fear their inability to direct and control the working forces of a county.

29. The absence of anything like decorations in the school-room has induced a lethargy on the part of the pupils that tends to lessen the love for books and for study; they, too, are indifferent and usually would as soon remain at home as attend the school of their own accord.

30. Finally, the entire want of anything like a required definite work to be accomplished by both teacher and pupil during a stated period, is the bane of our present school system; just so long as the teacher is not held responsible for certain results in his teaching, just so long will there be an isolated and varying condition of our rural schools.

How are we to test the work of the teacher in the trial of any definite plan of work?

To answer this question is the object of the following pages.

THE PLAN—THE STATE. (THEORETICAL.)

Since this book deals with the *practical*, and with plans tried and tested, the author does not assume to discuss the question of State Organization, or to deal with the theoretical.

No state (United States) has yet attempted a thorough organization of the rural schools within her domain, thus placing the question of a thorough supervision of the state before the public for its consideration, and no doubt, practical solution.

THE PLAN—THE COUNTY.

A working scheme, or plan of organization for the county, is here presented. The plan of organization is one that has been thoroughly tested, and with such satisfactory results as to warrant its presentation at this place.

The Plan

1. Course of Study.
 - Branches Outlined.
 - Work Limited.
2. Classification.
 - Primary Division.
 - Intermediate Division.
 - Advanced Division.
3. Regular Examinations.
 - Teacher's—Monthly.
 - Superintendent's
 - Central.
 - Final.
4. School Records.
 - Monthly—Teacher's.
 - Central.
 - Final.
 - } Superintendent's.
5. Awards to Pupils.
 - Central.
 - Final.
 - } Certificate of Rank in Class.
6. Care of Examinations.
 - Monthly.
 - Central.
 - Final.
7. Annual Exercises.
 - At Central.
 - At Final.
 - } Examinations.
8. Reports of Teachers, etc.
 - Teacher to Parents, etc.
 - Teacher to Superintendent.
 - Superintendent to Directors.
9. School Exhibits.
 - Central Papers.
 - Final Papers.
 - February Monthly.
 - Miscellaneous Work.
10. Catalogue.
 - Of the School.
 - Of the County.
 - a. Of Teachers.
 - b. Of Schools.
 - c. Of Centrals.
 - d. Of Final.
 - e. Of Exhibits.
 - f. Miscellaneous.

Decorations and Miscellaneous.

1. THE COURSE OF STUDY.

In some of the foreign countries where the population is much more dense than our own, the education of the rural inhabitants is as carefully considered, the standards of work are as fixed, the supervision as thorough, the results as good, as in the primary departments of their cities. These countries have courses of study tested and practically applied to the elementary grades of their schools. These courses are fixed by legislation, and usually carried out by enforcing general rules or decrees. The proper teacher or officer is compelled to enforce the use of the course of study.

In Belgium the course of study provides that all pupils shall take the several branches in the order indicated by it; only those books may be used that have been selected in accordance with the national law; the teacher must conform to all methods of instruction given in the regulations of the minister of public instruction; the program of work in the various branches of study is arranged by the head teacher, countersigned by the inspector of the canton, published by the municipal authorities, and placed upon the walls of the schoolroom by the teacher; the head teacher, or his assistants cannot make any changes in this outline of study without the approval of higher authority; the head teacher (principal) and his assistants are required to keep a daily record of the instruction in each class, the quality of the recitations, and the progress of the pupil in his

class-work; the classification of pupils in the different divisions belongs to the head teacher, or, in case of dissatisfaction, it may be referred to the cantonal inspector; the instruction must be equally distributed among the pupils, and no bright pupil is permitted to be pushed forward to give fine effect in the examinations; the room must be ventilated before and after the entering or dismissal of the school; physicians receiving a salary for the care of the poor must visit the public schools at least once a month; these physicians must report the sanitary condition of the pupils to the proper authorities; pupils cannot be promoted from one grade to another until they have passed satisfactory examinations and have the approval of the head teacher.

We quote directly from the program of education as published by ministerial decree in 1880, for the purpose of showing the object of the government in enforcing the course of study in the rural schools.

"If it is important that the program should neither alarm nor discourage any one, it is of supreme necessity that it should offer serious obstacles to routine and become an instrument of progress; that it should compel the teacher to awaken in his pupils a spirit of observation, experiment, and reflection; that instead of habituating him to the disastrous methods of verbalism it should urge him to labor for the sound development of the faculties. It should constantly be a reminder to him that his last as well as his first daily duty is to make a thorough preparation of his lessons, that is to say, to find out the surest, shortest, and most attractive way of making his instruction reach the minds and hearts of his pupils.

The program ought to fulfill another important condition. It should stimulate the teachers in small communes, while it responds to more general requirements. It should arouse them and encourage them to lead their pupils as far as the extreme limits of primary education properly so called will permit. But it should not become an obstacle in the path of improvement in larger communes which may wish to extend the education of their children beyond the ordinary sphere. In order to comply with these different principles the plan of study has been divided into two great sections, the program of the primary school proper and of the superior primary school.

The program of the primary school proper is obligatory throughout, and embraces three successive courses or grades of two years or more each. In schools where the attendance is regular the first or elementary grade will include, as a rule, children of from 6 to 8 years of age; the second, children of 8 to 10; and the third, those from 10 to 12 years of age. It is not the intention of the government to prescribe in an absolute way the precise time to be devoted to studying the subjects assigned to each grade. It contents itself with requiring that these three great stages of school life should be clearly marked in each school, and it is also convinced that the majority of children will be able to pass them without too much effort between the ages of 6 and 12, and very easily between 6 and 13, or 6 and 14 years of age.

It belongs to the inspectors, the communal governments, and the teachers to adapt the program to the needs of each locality by distributing the subjects of

study among the different school years and divisions and by selecting the points which will only be treated summarily and those which, according to the longer or shorter time at the disposal of the teachers, can be studied more deeply.

The superior primary school can only be established by virtue of the same decree. It will be opened for children of at least twelve years of age who have finished the studies of the third grade of the primary school. Instruction in each of these schools will be given by one, and if necessary, two special teachers. The superior primary schools will offer great advantages to the large rural or industrial communes which have no secondary state schools. They will continue the general education of the young, furnish preparatory training for an agricultural or professional career, and diffuse among the population, by an extension of knowledge, a taste for observation and for intellectual pleasures.

Communes which cannot organize a complete superior primary school, may add to the obligatory program of the ordinary primary school one or more of the subjects of study of the superior primary school, in accordance with the regulations of the above mentioned royal decree, such studies to be pursued only by pupils of at least 12 years of age. In the interest of the scholars, care will be taken that the number of studies thus added shall be as restricted as possible.

As formulated, the program of primary education, with the extensions it may receive, embraces four concentric circles, gradually widening, each of which embraces all the subjects of study. These four progressive courses, the first three of which are obligatory, are char-

acterized by being at once independent and connected, each forming a whole in itself and yet being complemented by the others. The system adopted, so eminently suited to the simultaneous development of all the faculties of a child, also has the advantage of corresponding in its first three courses to the present classification of scholars into the lower, middle and superior divisions, and is adapted at the same time to the needs of children who leave school without having finished a full course of primary studies."

The program also gives an extensive outline of the province of the teacher with respect to morals, and school hygiene. Space will not permit its insertion at this place.

We quote from "Circular of Information" No. 6, 1884. Bureau of Education, Washington, D. C., the following concerning primary schools in France.

"Education in public primary schools is free.

The pedagogical organization of the primary schools and the plan of studies to be followed in them have been regulated and determined by the minute of July 27, 1882.

Primary instruction is divided into three courses: (1) elementary, lasting two years, for children aged 7 to 9; (2) intermediate (cours moyen), lasting two years, for children aged 9 to 11; (3) superior, lasting two years, for children from 11 to 13 years of age.

The departmental council fixes the regulations of the schools in each department from the general instructions of the official regulations decided on by the education minister with the assent of the conseil superieur.

In each course the children must receive a threefold

training, consisting of (1) physical education; (2) intellectual education; (3) moral education. The ordinary obligatory curriculum of intellectual instruction comprises reading, writing, arithmetic, the elements of the natural sciences, geography, history of France, drawing and music, and is strictly carried out in all the town schools and in many of the country ones. Some of the schools have cabinets of minerals, botanical specimens, science and art museums, and nearly all possess graphic illustrations of physical and political geography, raw materials and manufactured products.

The whole of the instruction in a class or division, as the case may be, is generally conducted in a separate room. The hours of instruction are from 8 A. M. to 4 P. M., with one and a half hours' interval at noon, and an hour from 4 to 5 for gymnastics. The same master gives all the lessons to a class, except music, gymnastics, and occasionally drawing in the male, and needlework in the female schools. Pupil teachers, as assistants, are permitted by law, but the employment of them has been generally discontinued.

In many of the large cities the children take their dinners in the school. In some cases a kitchen is provided and the whole or a portion of the cost of preparing food is borne by the school authorities. In the poorer districts of Paris a portion of the cost even of the food itself is defrayed by the municipality, and in extreme cases the authorities provide boots and clothing for the children on the recommendation of the master.

Corporal punishment is strictly forbidden in French schools of every grade.

Primary instruction is compulsory for children of both

sexes, including the blind and deaf-mutes, from the beginning of the seventh to the end of the thirteenth year.

In every commune, (there are about 36,000 communes in France,) besides a school attendance board, there must be a school board composed of the mayor, of certain persons to be appointed by the inspector of the academie, of the inspector of primary schools of the department, and of a number, not exceeding one-third of the whole board, of persons elected by the council of the commune. (There are special provisions as to the composition of this board in the case of Paris and Lyons.)

Children may present themselves for examination for the "certificat d'etudes" at the age of 11, and, on passing it, are to be exempted from further compulsory primary instruction.

It will be noted that the primary instruction in the rural schools of Belgium, and of France, is under the direct supervision and control of the government. This is true of Germany, especially Prussia, and many other foreign countries. In Prussia the system of inspection is intelligent, frequent, constant, responsible, reaching every school and every teacher in the country districts, as well as those of secondary instruction. The supreme authority in all matters of education is vested in a minister of education, local supervision in the provincial authorities, and these in turn have subordinates down to the committee of management for each school; thus a complete plan of inspection exists, from the elementary schools in successive steps through the whole course to the normal schools. Having a complete

system of inspection and supervision, these countries require definite work at the hands of their teachers and their pupils; where supervision is most perfect, there is required most definite work; where supervision is in its infancy, or where there is none, there is the greatest want of definite results and of intelligent instruction.

In the United States we have no national system of education; the several states of the Union are left to devise their own system of educating their children; these systems differ mainly in details, and give to the several states an individuality not noted in foreign countries; the public schools are established and controlled entirely by the people through their chosen officers.

Since in all cases of intelligent supervision there must be something to supervise, those countries having the most complete system of supervision, have the most perfect arrangement of detailed work, and thus have definite objects to be attained, and to be tested by the supervising officer. This detailed work to be completed in a given time is but a course of *study*, planned and devised by those who have the authority to do so. What then is the duty of the supervisor of schools? Simply to see that the course of study is faithfully executed, and to attend to its consequent auxiliary duties connected with his office.

With the one to four hundred teachers found in the rural schools of a county, there can be no uniform work of a practical character accomplished without a uniform course of study, or some definite guide to direct the several teachers in *what* to do as well as *how much*. Every teacher must do something, and he will do that

something in a methodical or an unmethodical manner, just in proportion to his ideal of the thing to be done, or of his knowledge of the subject.

In order that we may not be understood to assume priority in advocating a course of study for county schools, we here subjoin extracts from numerous sources, and from higher authority, upon the subject in hand:

"The rural schools are thus under the same regulations as the city schools, and have the same inspectors, the same examinations, teachers from the same training colleges, the same resources for money, and the same kind of local regulating authority."—*John Eaton, of Washington, D. C.*

"When once aspiration is awakened in pupils by a consciousness of growing capacities, encouraged by generous emulation and frequent promotions, parental pride is apt to be quickened *pari passu*, and thus students, put upon the upward-climbing path of progress, would have an honorable ambition to ascend to the heights of academic training."—*Howard Henderson, of Kentucky.*

"Intelligent supervision, upon which the established superiority of our city and village schools depends, should be provided for the township districts just as for the city and village districts."—*Charles S. Smart, of Ohio.*

"Intelligent oversight, from the principal, is a powerful incentive to diligence in study and achievement in both the teachers and the pupils. The superintendent stands in the same relation to all the grades that a chief in a manufacturing establishment does to the separate

branches of the business, from the nature of the raw materials up to the highest production of skilled labor and perfect machinery. He is conversant with the end in view, from the most elementary work up to the product possible to the educational agents and agencies employed. Discipline does its productive work; for everything proceeds upon a defined programme of daily exercises, requiring punctuality and regularity of attendance."—*Henderson.*

The field of labor for each superintendent will be large, and his duties arduous; but earnest, enthusiastic men overcome seemingly insurmountable obstacles, and those with whom they associate become imbued with a portion of their spirit. Under the watchful care of these men, the sub-district schools would soon begin to emulate those of the towns and cities in the struggle for excellence."—*J. W. Harvey, of Ohio.*

"During the last four years the matter of a continuous course of study for the ungraded or mixed schools of this state has received the attention of the leaders of educational thought throughout the state. Many superintendents and teachers have made practical efforts to introduce such a course of study in these schools in different parts of the State.—*Robert Graham, of Wisconsin.*

"Within a few years much attention has been given to the order and conduct of studies in rural schools, and in a number of States definite courses of study have been adopted and measures taken for enforcing their use. * * * * * * * * *

In determining the outline courses, two points must be kept in view: first, the branch upon which classifica-

tion shall be based; second, the daily program. In a graded school the studies are uniform for all the members of the same class. In an ungraded school this uniformity is impossible, and some study must be selected as the basis for the division into classes. The choice is between arithmetic and reading. The latter is generally to be preferred, as children differ much less with respect to their capacity for reading than for computation. In arranging the daily program it should be remembered that some studies require more time than others, and that some are a greater tax upon the mind than others. These severer studies should be assigned to the hours when the children are freshest and brightest, viz: the forenoon and the hour immediately following recess. The chief difficulty in classifying ungraded schools arises in connection with scholars who grade in more than one class. Some authorities object to this provision altogether, but those who have the true interests of scholars at heart will recognize its necessity; the proper ideal of a school is the greatest good to the individual consistent with the interests of the majority, and under this conception flexible classification must be allowed within reasonable limits."—*Eaton.*

"They cannot forget that the constant, barren repetition of the same studies two, three, and even more winters, induces the growth of dreamy and slipshod habits of mind, instead of a growing interest in intellectual activity, and the joyous consciousness of increasing life and power. Thousands of parents bitterly deplore the fact that their listless habits, generated by the lack of opportunity to progress, pre-occupy the

minds and hearts of their children with unprofitable and evil thoughts and desires, and thus to weaken and debase their characters, while they minister nothing to their intelligence or intellectual ability."—*Daniel De Wolf of Ohio.*

FROM ILLINOIS SUPERINTENDENTS.

"I have attempted to introduce a course of study into the country schools. It has succeeded beyond my expectations. The results in many respects have been great."—*G. R. Shawhan.*

"I have not attempted to secure the adoption of a course of study in country schools farther than to distribute the outlines sent from the state office to the districts, and to recommend their adoption. Two or three *only* have adopted a course, and with them it is working well. It appears to diminish absenteeism, to induce pupils to continue longer in school, and to increase the interest of parents."—*S. B. Hood.*

"An outline of study for ungraded schools has been partially introduced into the schools of this county with favorable results, and while it has not been thoroughly tested, enough is known to warrant its adoption in every school of the county."—*W. H. Hilyard.*

"In adopting a system of grading for the country schools, I have not been as successful as I wish to be. Early in the winter of 1884, I issued a circular giving an outline of a course of study for the country schools. The plan of grading in this circular is based upon the outline given in the Macon and Champaign county manuals. A system of grading, however good it may be, can not be introduced and adopted at once, so long

as the name of county superintendent remains a misnomer."—*F. G. Lohman.*

"During the institute of last summer, 1883, this matter was brought prominently before the teachers of this county. The practicability of introducing a systematic course of study into the rural districts provoked a general discussion; and it was not without some misgivings as to the result, that a goodly number of teachers volunteered to use the outline of study embraced in circular three. The results achieved attest the wisdom of the movement. They may be summarized as follows: (1) A better system of examinations; (2) regular promotions; (3) a hearty emulation among the pupils; (4) the work as a whole is systematized and made more practical."—*J. H. Duncan.*

"In those schools or districts where a proper course of study has been adopted and carried out, the great advantage is very evident."—*G. B. Stockdale.*

We have adopted a course of study in our country schools and review same monthly by written examinations.

Its results have been gratifying in every respect. It has systematized the work in the school room and aided much toward the proper classification of our schools. It requires pupils to pursue many important subjects frequently neglected. Among these may be mentioned language, composition, grammar and the study of U. S. history. It requires teachers to teach the subject and not the book. The constant reviews require pupils to be self-reliant and thorough. It holds teachers as well as pupils accountable for the proficiency of their work. It renders supervision possible. The monthly

examinations being preserved, the superintendent is enabled to judge of the regular progress of the school and properly estimate the teacher's adaptability to his calling. It creates an interest in school work that can not otherwise be aroused. By it our good teachers are retained and the poor ones discarded. It retains pupils in our schools and increases the daily attendance.

By following a proper course of study, boys and girls on leaving our country schools would be able to write a good composition, using correct language, giving proper attention to capitalization, punctuation, etc. They would have a fair knowledge of the common branches, such as would fit them for the after duties of life. Those who are interested in our schools, and who assist in their support, would be thus assured that their interest and assistance are duly appreciated, and that the advantages of our free school system are fully improved. The efficiency and usefulness of our schools would be so improved that the full time of the county superintendent (of each county in the state) would be granted for supervision and an assistant or assistants given if necessary, to aid in the proper supervision of our schools. The office of county superintendent would be put on a basis with other county offices, as it should be."—*J. McKearnan.*

We might produce an unlimited member of testimonials in favor of grading the country schools but forbear, as we deem the above sufficient to prove the utility of introducing a course of study into this department of our public school system. What, then, is a graded school?

Prof. W. H. Wells defines a Graded School as follows:

"A Graded School is a school in which the pupils are divided into classes according to their attainments, and in which all the pupils of each class attend to the same branches of study at the same time."

We append two other definitions in support of that of Prof. Wells:

"All the pupils in any one class attend to precisely the same studies and use the same books. In each room there will be a first and a second class, and it is important that the identical pupils which constitute the first class in one branch should constitute the first class in every branch pursued by the class. By this arrangement, while one class is reciting, the other is preparing for recitation, and an alternating process is kept up through the day, affording the pupils ample time to study their lessons, and the teacher ample time to instruct each class. This is what is meant by a graded and classified school."—*Irà Divoll, formerly Superintendent of Schools, St. Louis.*

"The due classification and grading of the schools is but the application to the educational cause of the same division of labor that prevails in all well-regulated business establishments, whether mechanical, commercial, or otherwise. It is not only the most economical, but without it there can be little progress or prosperity."—*H. C. Hickok, formerly Superintendent of Public Instruction of Pennsylvania.*

"No pupil should be advanced from one grade to another, till he has first sustained a thorough and satisfactory test-examination on all the branches of the grade from which he is to be transferred."—*Prof. W. H. Wells.*

"Other things being equal, the closer the classification the better the school system."—*H. F. Cowdery, formerly Superintendent of Schools, Sandusky, Ohio.*

"The advantages of the union school arise chiefly from the grading. The more perfect, therefore, the grading, the more certain and marked will be the success of these schools."—*J. M. Gregory, formerly State Superintendent of Schools, Michigan, Regent Illinois Industrial University, etc.*

In substance, a graded school is one in which each branch has its due share of attention, and in which each pupil must have a certain degree of proficiency, and in a certain order. If these things are theoretically true, what objections can there be to making them practically so?

Admitting, then, that a course of study is necessary to the intelligent administration of instruction in our common schools, we explain the plan of such course for the purpose of having a proper understanding of its true import.

The course of study has been in use from the earliest times; not a college or a seminary of learning, from the primitive high school to the highest institution of learning in the land, that has not had a course of study; it is true that some of these courses are hardly worthy the name, but in the main they at least show the order of taking up the several branches taught, and provide for promotions at stated periods; they compel pupils having certain attainments to enter certain classes; to carry certain per cents in these classes before promotion, etc. If these points of progress are adhered to so closely in the graded schools of our cities, what is there

to hinder the application of the same general plan in a modified form in the country school?

Hundreds of men and women have admitted the force of the above question, and in the belief that a course of study would be beneficial to our rural schools, have urged those high in authority to issue such course, with a view to the direct application of the principle to the ungraded school. School officers, both state and county, have issued courses of study containing all the essential elements of success, and, all that was needed, with the single exception of that which was necessary to enforce it, viz: *the proper supervising essentials.*

The author is of the opinion that no course of study, no matter how perfect, can be put into universal use without some direct means of enforcing its every provision; this means need not be the power with, or behind the throne, but *should be with the people, and the children themselves.* No power in legislation will successfully accomplish this, that does not recognize the people as the judges, and as the executive authority in the tests of the products of any state or national school system. All attempts at the introduction of a course of study into the rural districts without recognizing the judgment of the people have thus far been failures. State authorities have issued well devised and practical courses of study, but there was no means for the people to apply the test, and they died, or fell into disuse; county authorities have tried the same thing and have failed; then, just in proportion as the people have been recognized, have these undertakings succeeded; those succeeding best where the decision has been left wholly to the judgment of an impartial public.

A course of study for rural schools, in order to succeed, must be made so specific in its detail that the children themselves shall know and understand when its provisions are not carried out; it must be made so plain and so practical that the masses of the people shall understand its most intrinsic workings; it must be so comprehensive in its detail that the mediocre among the teachers shall know and comprehend its import; without all these it must fail.

Thus it is that the brief course of study, as usually published, is not understood by even a majority of the teachers; certainly not by the children and by but few of the patrons; it can only be understood by having its veriest details in the plainest language; hence the absolute necessity of a complete detailed outline of study to agree with the course of study.

The teacher must know how much he is expected to do within a given time, as well as know how to do it. (The supposition is that he knows *how(?)* to do the work when he sets out to teach.) The pupil must know how much he is expected to do within this given time, as well as *know(?)* how to study. (This last remark is based upon the presumption that the teacher shows the pupil *how to study.*) The pupil must know when he has done this required work, as well as the teacher; the parent must know just where the pupil stands in his work in order to test the product of the school; knowing this, the public readily recognize inferior or superior products, and award the teacher proportionally for his services. There can be no mistake concerning this; it is both reasonable, and has been definitely proven to be

entirely practicable by the actual application of the principle for a term of years.

We do not make any pretensions to originality in any of these theories, but simply reiterate the principles as held by others for ages, but intact and in piecemeal, until put together and practically applied by practical educators in both graded and ungraded schools. The whole system is deduced from the experience of others, and is not the original product of any one man or woman, in any sense of the word.

2. CLASSIFICATION.

a.—Primary.
b.—Intermediate.
c.—Advanced.

The object of classification in the organization of a school containing but one department, is to establish a continuity of successive and progressive work, from year to year during the usual school life of the child. The order of the studies should be so arranged as to be adapted to the healthful development of the child's faculties. These several studies have a natural dependence upon each other and are so related as to strengthen his powers for acquiring knowledge, provided they are presented in this natural order. Hence a definite object of attainment can be presented to the pupils in a given course, a fixed amount of work as the minimum can be successfully presented to those who are under our care as subjects of development.

With this view of the subject, there must of necessity be certain branches of study better suited to pupils advanced in school-life, than to the beginner of tender years. This must lead to some system of classification; this system must meet the wants of the pupil and at the same time be adapted to the immediate surroundings of the school.

The most convenient divisions of the mixed or ungraded school seems to be that of three divisions, or departments. In France these divisions are called

Lower, Middle, and Upper Classes; in Switzerland these divisions are called First, Second and Third Groups; in Prussia they are called Lower, Middle, and Upper Grades; Austria calls the divisions Groups; in the United States there has been but little done in this direction, but the graded schools call these divisions Departments. The term Division seems to be quite appropriate and best understood by the rural population, hence we adopt these terms; the term Department or Grade seems to carry with it something indicative of city school life, and arouses the prejudices of the rural inhabitants to a greater extent than the term Division. Adopting this term, and following the plan of those countries which have given much attention to the systematic classification of the schools, we adopt the terms Primary, Intermediate, and Advanced Divisions, as possibly the most expressive to those who are most concerned.

As age cannot be relied upon to indicate the advancement of the pupil, some other basis of classification must be adopted. All attempts to classify under the head of *time*, have thus far proved unsatisfactory, and have been abandoned sooner or later—the element of time, therefore, cannot be the basis of a thorough classification. It is believed that the readers afford the best basis for present classification in the country school. It is necessary to classify from something in common, as that which is not common to all would fail to include all. Much has been said and much has been written upon the subject of classification in the country school, but no practical scheme succeeds so well as that of making the reader the basis of classification for all branches

of study. It is customary for pupils to read all the way through school life, from the time they enter the First Reader until they leave the school in the last reader used. It is the experience of the writer that thousands of our pupils read in the classes as a regular daily exercise (in the adopted reader) for twice the number of years necessary to make them good readers. Wherefore the necessity of conning over lessons long after they are well *understood?* When a lesson is thoroughly understood, why not pass to another one? But these questions will be answered in their proper places. Adopting the reader as the basis of classification for the country school we proceed to make the necessary Divisions, viz: Primary, Intermediate, and Advanced.

A careful study of the classification as adopted in all foreign countries, and in our own so far as uniformity is concerned, reveals the fact that nearly all concede the practicability of dividing the rural school into *three* divisions for the purpose of examinations and promotions.

All pupils reading in the First and Second Readers should be classed in the Primary Division no matter whether they have had all the Number Work, Oral Language, etc., necessary to complete the required course or not;—all pupils who read in the Third and Fourth Readers should be considered in the Intermediate Division and so ranked in all reports, whether they are possessed of the required advancement or not. In other words, simply class all in these two readers as belonging to the Intermediate Division:—All pupils who read in the Fifth Reader, (if there be persons who do not enter the regular classes in reading they should be considered

in this division also,) should be classed in the Advanced Division, whether they have completed the work of the other branches as selected for the Intermediate Division or not. The classification under this plan would appear about as follows, so far as the readers are concerned:

DIVISIONS.
- Primary
 - First Reader.
 - Second Reader.
- Intermediate
 - Third Reader.
 - Fourth Reader.
- Advanced
 - Fifth Reader.

Such a scheme begins the classification of the school at once; pupils can understand that they are to be classified under the division in which their reader falls; many of them will not have had the required branches for the division in which they belong, however.

Proceeding upon the above basis for classification, it will be necessary to consider the several branches to be studied in these divisions; in the Primary Division it is often the case that pupils are pushed forward in the reader to the neglect of Number Work, Penmanship, Language, or Spelling. Each teacher is left to do as much or little of this work as he desires, and having no supervising officer to look after him in this division, he either works a hobby of a certain branch, to the exclusion of others, or else he neglects them entirely. The writer has found schools in which there was no Number Work, but *Arithmetic* from the text was attempted, in the First and Second Reader classes. He has found a large number of schools in which there was no attention given to Language, although the readers were well adapted to the direct application of foundation principles in this much neglected subject. While he is loth to admit it, he has found and inspected quite a number

of rural schools in which the children were absolutely forbidden the privilege of using script, and who were compelled to *print* everything copied from the time they entered the First Reader until they passed through the Third Reader. *It should be remembered that pupils as readily learn the use of script as they do the printed forms, and that the former is constantly used through life, while the latter is seldom if ever used.*

On this basis we then have the following classification in this division:

PRIMARY DIVISION. { Reading. Number Work. Language Work. Spelling. Penmanship.

The Penmanship should not be considered as a separate class, but the members of this division should be considered as belonging in the class in Penmanship that should embrace the whole school; that is, the pupils should receive instruction in this branch with the whole school; the Language Work should be done in connection with the Reading; the Spelling should be carried along with the reading and taught in connection with that branch; thus, there need be no special classes for the study of Penmanship, Spelling, and Language, but it will be necessary to arrange for time to hear the class in Numbers. Hence we may grade to three classes in the Primary Division.

In the Intermediate Division the Number Work begun in the Primary Division should be continued through the Third Reader, when the study of Arithmetic properly begins in the Fourth Reader. Some teachers succeed admirably by introducing the text in the Third

Reader, but as a rule, pupils will do the most satisfactory work by dictation from the teacher, with some good Arithmetic as the guide. It is true that such a course gives the teacher some extra work and labor as compared with the text-book methods usually found in the ungraded schools, but such a course gives results directly in proportion to the labor expended in giving pupils work from the board, from the book, and original problems.

Not more than two classes in Arithmetic should be tolerated in this division; in many schools the teacher may grade to one; he will be able to have the members of the Second and Third Readers unite into one class in Numbers, or he may be able to have advanced pupils in the Fourth Reader unite with those of the Fifth, thus leaving but one in the Fourth, composed of the poorest scholars in that class and the *best* in the Third Reader. The speed with which a perfect classification may be accomplished, depends upon the good judgment of the teacher. Unless he be governed by this one necessary quality, he will fail in the proper classification of his school.

The Language Work begun in the readers should be continued through the Third Reader with such additional work as the teacher may secure from any good course in Language. The text should not be placed in the hands of the pupil before he reaches the Fourth Reader.

If a regular Spelling class is desirable it should be organized from the Fourth Reader class principally, as the speller should not be introduced before reaching this point. By taking the best spellers from the Fourth Reader and placing them in the advanced class from the

Fifth Reader, and by placing the best spellers from the Third Reader with the poorest in the Fourth Reader, a class of beginners may be had in the Spelling-book. Strictly speaking, all the words should be spelled as found in the readers and other texts; Spelling should be made a constant study in connection with all the texts; pupils should spell everything as they progress, thus obviating the seeming necessity for the speller.

Penmanship should be taught as a regular general exercise in which all take part.

Oral Geography should begin in the Third Reader; the text should be used in the Fourth Reader, but not in the Third. This will necessitate the formation of two classes in this subject. It is sometimes well to place the best scholars from the Second Reader, and the poorest from the Fourth Reader into this class; in other words, use the same judgment in this classification as in any other.

Primary History of the United States should be introduced in the Fourth Reader; to omit the study of this branch in one year after he enters the Fifth Reader. Permit but one class in this division.

The classification would appear about as follows in the Intermediate Division:

Intermediate Division.	Reading. Arithmetic. Language. Penmanship. Spelling. U. S. History. Geography.

In the Advanced Division there should be but one reading class as a rule, there are cases where it would be

advisable for pupils to pursue the studies of the Fifth Reader Division while in the Fourth Reader, and there are cases where it would be well to divide the Fifth Reader class into a class of its poorest readers and one of its best, thus forming two classes. It is usually best to place the best readers from the Fourth Reader into the Fifth Reader class and in like manner divide the Third Reader, thus being able to abandon one class for a time. This should be but temporary, and can be best accomplished where the school is able to secure supplementary reading. At any rate by judicious management, the teacher may be able to reduce his number of classes to the minimum in some way.

There should be but one Spelling class in this division as indicated in the Intermediate Division. In many schools where the gradation is good, the pupils in the Fifth Reader may take the work outlined for the Intermediate Division and thus have but one class in the speller. In many schools the patrons will acquiesce in a practical classification in which Spelling is governed by the reading of the pupil from the text, together with the dictionary work so necessary to intelligent work in this branch.

The remarks concerning Penmanship in the Intermediate, and the Primary Divisions are equally applicable in this division—the whole school should be classed together.

But one class should be permitted in Arithmetic in this division; this class should take up the subject where the Intermediate Division leave it; by such a course there can be but three classes in the practical arthmetic, and in many cases there will be no necessity

of more than two. The preceding remarks are based upon the supposition that a "Higher Arithmetic" is not in use in the ungraded school. While this book may have its place in the high school or the academy, it certainly is out of place in the average country school for any purpose other than a reference work, or for private use.

In Geography but one class is needed; no matter whether there be a uniformity of texts or not, pupils may be so classified that but one is needed. The work in this branch should be thoroughly and carefully done in the Intermediate Division in order that the pupil may complete the outlined work in one year after he enters the Advanced Division, thus making a complete course of two years in the text-book proper.

But one class in technical Grammar is needed in the ungraded school. As usually taught this is one too many, since it is of little practical value in its application. The study of Grammar as a science is necessary and appropriate in the high school course, but certainly does not belong in the ungraded school. But, owing to the fact, that it is found in these schools, and also to the fact that we must teach it according to the provisions of our school law, it must be met in the most practicable manner.

Then one class in the Language book, and one in technical Grammar is all sufficient; the Language book being introduced in the Fourth Reader grade, prepares the pupil for much written work in the Grammar class. By so doing the composition begun in the Language class may be continued and practically applied in the Grammar class.

But one class is needed in United States History to complete the course in this branch. The year's study done in the Fourth Reader prepares the pupil for active work in this grade, and makes history a delightful study for pupils of this division.

A summary of the classification in a well regulated school would appear about as follows:

CLASSIFICATION OF THE SCHOOL.

Penmanship.

- Primary.
 - Two Reading Classes.
 - One Number Class.
- Intermediate.
 - Two Reading Classes.
 - Two Arithmetic Classes.
 - One Language Class.
 - One Spelling Class.
 - One History Class.
 - Two Geography Classes.
- Advanced.
 - One Reading Class.
 - One Arithmetic Class.
 - One Grammar Class.
 - One Geography Class.
 - One History Class.
 - One Spelling Class.

The preceding is but the general plan of classification as adopted by those counties most closely graded, and one which is very nearly satisfactory. Special objections to this plan will be met at the appropriate place.

3. REGULAR EXAMINATIONS.

That there are objections to regular examinations there can be no question; that these objections are valid in many cases, there can be no denial; but that examinations are of no value, cannot be clearly shown.

Everything in business life is estimated by some test; this test may not be termed an examination, but it is nothing more or less than such, no matter whether it be so termed or not. It has been said that the teacher knows the exact standing of every pupil under his charge, that he is capable of judging as to the promotion of the pupil, that examinations are useless for these and other reasons. This is true to a certain extent, especially in the city, or graded school; how is it in the rural school? In the graded school the teacher has the test of the course of study as interpreted by the superintendent; in the country school, as a rule, we have no such test. But with this test does the superintendent risk the promotion of the pupil to the high school without some fixed standard? If the pupil is not subjected to some periodical test in the shape of an examination, does it follow that he is free from it in his daily recitation, or in his "Friday Reviews?" That test which is applied all along the line from the day that he enters school until its close is the best; but is such a test uniform for even a city? No one will for an instant claim that the test of one teacher will be that of

another; there must, then, be as many degrees in the test from the teachers of a county as there are teachers, since, if left alone, they will make or unmake a course of study. In other words, the test for promotion given by one teacher is very different from that given by another.

Why, then, do we have these tests?

We quote as follows from *A. G. Jennings, Hingham, Mass.:* "First, to help the scholars. A carefully prepared list of test questions will frequently bring up practical subjects which have perhaps been neglected or overlooked. Scholars go from their written test exercises to their books with greater interest than ever before, and those questions not answered in the examination are afterwards made familiar by careful investigation. There is one advantage, also, in having questions submitted by some one beside the teacher. Scholars grow familiar with the style of their regular instructor, and can answer his questions, when they are confused if the same questions are submitted by a stranger."

R. I. Perkins, of Boston, writes as follows: "There is a powerful incentive to master any subject about which it is certain that one will be questioned, and must have something to say. The larger proportion of the studying that is done, whether by the young at school, or by men in professional life, is prompted by this incentive. The expectation of speaking on the subject generally relates to some definite time, as with the lawyer preparing his briefs for the court room, or the clergyman in writing his sermons. So with the student at school. He feels that at his recitation he will be called upon to say something on the subject he is studying,

and this spurs him to diligence in learning as much as possible about it. Nor is it true that such knowledge 'passes out of the mind' more quickly than that acquired without that incentive. Still, if the student feels that the acquirement is *merely* for that occasion, and does not view it as adding to the general store of information that will be wanted for all occasions, it will undoubtedly prove of less value to him, and be sooner forgotten."

Anna C. Brackett, of New York, says: "The more we consider the subject of examinations, the more do we discover that its roots run down to the basis of educational science itself, and that it is by no means a light question we are asking when we say, 'What is the tendency and value of examinations, and what, in a philosophical system of education, is their province?'"

Many other good authorities might be quoted, giving valid reasons for holding examinations, but space will not admit. A careful research among these authorities clearly proves a preponderance of evidence in favor of examinations in the city schools. A certain work is given the children to perform in a certain time, and as a means of knowing how well it is done, the superintendent furnishes uniform questions to his several teachers; these are in turn submitted to the pupils, and the result of the test reported to the superintendent.

School examinations should show the systematic arrangement of the regular work of the pupil, or certain portions of it at stated times. As it is impossible to show all the work even in the city, it cannot be the best plan to attempt to do this in the country. Acting upon the conviction that the patron should know the

standing of his children, that the pupil should know his absolute as well as his relative standing, and that the superintendent should *know* of the ability of his teachers to carry out his commands, or to follow the course of study for a given time, we briefly outline the plan of examinations that has proved the most satisfactory in the supervision of the county.

Teachers' examinations are held monthly and in the following manner: The superintendent prepares the questions and is limited in this work by the provisions of the outline; that is, he is pledged not to prepare questions whose answers would require a knowledge of the text beyond the month's work. No one except the printer and the superintendent are supposed to know the contents of the examinations; when printed, the superintendent seals one set of each within a properly labeled envelope and places it into the hands of the teacher.

A *fac simile* of such envelope is here shown:

TO BE OPENED ONLY BY
THE COMMITTEE,
—ON THE—
3d Friday of Nov.

In order to prevent any irregularity in the opening of the envelope, the school should select a *committee of three* to open it upon the third Friday as agreed upon. This committee should be chosen on the previous day, in order that there may be no delay in selecting it on examination day. This committee should be selected by requiring nominations from each of the three Divisions, thus representing the whole school.

On the morning of the examination, promptly at 9 a. m., or sooner if possible, the school should be called to order and the envelope opened in the presence of the school; it is well for one of the members to take the envelope, examine the seals, pass it to another, and he in turn to the third member, who may break the seal; this committee should then sign the certificate attached to the questions and hand the sheet to the teacher.

A copy of the examinations for the month of October, 1884, as used in the counties of Macon, Piatt, Champaign, Will, Sangamon, Morgan, and several others in Illinois, is here presented:

OCTOBER, 1884.—ADVANCED.

ORTHOGRAPHY.—1. Define word, letter, vowel, syllable, consonant.

2. Give rule for final e followed by vowel, (in forming derivatives.) Give example.

3. Make list of words under rule two in the Manual.

4. *Able* or *ible* = *that which may or can be.* Add able or ible to sale, fuse, pass, force, trace, change, tame, erase, move, charge.

5. Ditto: read, ford, rise, observe, impose, divide, fall, receive, teach, tax.

PENMANSHIP.—1. Same as intermediate.

ARITHMETIC.—1. What is a simple fraction? A mixed number? A fraction? A period of numbers? Division?

2. What is the cost of 3,000½ lbs of wool at $0.37?

3. A bushel contains 2,150½ cubic inches; how many such inches in this room? (Teacher give dimensions.)

4. If 20 per cent. of $8.75 be spent for corn at 25 cents per bushel, how many bushels will it purchase?

5. Teacher supply.

GRAMMAR.—1. What is declension?

2. Decline lady, child, ox, dog, rat.

3. Write the properties of nouns in a neat brace form.

4. How is the possessive singular always formed? Give good examples.

5. Parse the nouns: "James's book contains the outlines." "The careful student can do the work of the Manual very easily." (Teacher may add to this if he desires.)

UNITED STATES HISTORY.—1. Tell about Balboa's discovery. 2. What part of the United States did each of the nations claim? Did we have a United States then? 3. Tell about Captain Smith and the Jamestown settlement. 4. Name the principal English explorers. 5. Tell all you can about the Indians. (Their habits, manners, and customs.)

GEOGRAPHY.—1. Bound Europe. Has it a capital? Why, or why not? 2. Locate Ural Mountains, London, Danube River, Candia Island, the Crimea. 3. Why is the climate of England so mild? Of Lapland so frigid?

4. Name eight seas of Europe. 5. Peninsulas. 6. Name states (U. S.) bordering on the Atlantic Ocean.

READING.—Teacher to select a short stanza and have pupils *paraphrase* it.

Pupils may write about Longfellow next examination

We opened the envelope at.....a. m. and found the seals

.....
..... } Committee.
.....

.....School, Oct.....1884.

N. B.—Questions for next month will be ready the first Saturday in November. If you cannot come for them by the second Saturday, send by some one from your district for them.

You are invited to our teachers' meeting at each session.

OCTOBER, 1884.

PRIMARY—FIRST AND SECOND READERS.

SPELLING AND READING.—1. Teacher select a page from the reader, (in each class,) and require the pupil to make a list of all words beginning with the letter a.

2. Teacher select ten words from these pp. and pronounce to pupils. If the pupils cannot write, spell orally. *All such should write by November examination.*

3. Spell cat, dog, rat, ox, my, sun, tub, ran, fly, set. (First Reader.)

Spell desk, chair, book, slate, chart, maps, stove, bell, chalk, Jane. (Second Reader.)

4. Write the names of five boys.
5. Write the names of five girls. } Each class.

PENMANSHIP.—If you have not already filed your specimen of Penmanship, take the "Lines for October" as a specimen. It would be well to take the specimens for each month at some time previous to the examination.

NUMBER WORK.—Write the number two, in three different ways.

2. Write X in three ways. Write 11 tops in three ways.

3. 3+2=? 2+3=? 3—2=? 4+2=? 4—2=? 2×3=? 3×2=? 2×4=? 4—2=? 5+2=?

4. Read 3—2=I. V+2=VII. 3+4=VII. 6÷2=III. 6÷3=2. 10 cents÷2=5 cents. 10÷2=V. 9 cents—5 cents=4 cents. XX÷X=2. 12 days÷2=6 days.

5. Write ½, ⅓, ¼, 1-5, 1-6, 1-7, ⅛, 1-9, 1-10, ⅔.

Follow the Manual carefully and use any late arithmetic for new problems.

LANGUAGE.—Select five directions from exercise 1, page 12 of "How to Speak and Write."

If you have neglected to secure the "Teacher's Edition," you should do so no longer.

INTERMEDIATE—THIRD AND FOURTH READER.

ORAL GEOGRAPHY.—Where does the sun rise? Where does it set?

2. Which way is your home?

3. Is the world flat? Is the sun larger or smaller than the earth?

4. In what state do you live?

5. Draw plat of neighborhood so far as known to pupil.

TEXT-BOOK GEOGRAPHY.—1. Take Manual and write complete outline for Illinois, as for Maine in the November work.

2. Name the metropolis, capital, county seat, normal schools, university, penitentiaries, "Gem City," "Garden City."

3. Give length and breadth of state.

4. Define city, river; source, mouth, right and left bank of river.

Name some railroad in the county.

LANGUAGE.—Write your surname. Your Christian name. Your full name.

2. Write a statement about yourself and playmate.

3. Write a statement about something in your desk.

4. Write a statement of a place you have seen.

5. Write a statement of something found in the sea.

6. Teacher select from page 19, five blanks to be filled.

ARITHMETIC.—Write 20 tens, 90 tens.

2. Copy and read, 20304, 17042.

3. What is addition? Subtraction?

4. Add 372, 846, 975 and 27.

5. Divide 4,876 by 23. Multiply the quotient by 23.

UNITED STATES HISTORY.—Take the book used and make up a set of questions limited to page 37 in extent.

PENMANSHIP. — 1. Write the short letters. 2. Write the word mamma, five times. 3. Write a couplet of poetry, (selected by teacher.) Insist upon specimen work from pupils in all of the above.

SPELLING.—1. Write five names that shall represent fruits. 2. Five that shall represent tools. 3. Five that shall represent occupations. 4. Five that

shall represent household names, (as father, &c.) 5. Five words of two syllables that shall contain *long a.*

READING.—Select a short stanza, or paragraph, that you admire, copy it and tell why you admire it.

The teacher takes the questions, places them upon the board, and the children answer them in writing. This is called the Teacher's Examination, as he is in charge of it, although he does not assist in the preparation of the questions; he grades the papers, records the grades, reports to the parents, and has full charge of it.

It will be noticed that such a plan will secure uniformity of questions for the whole county, the envelopes will all be opened in the same manner and at the same time; this then, is the first step toward securing uniform results.

These examinations are usually held during the months of October, November, December, January, and February; thus making a series of five successive monthly examinations. For the Spring and Summer months it has been customary for the teacher to make his own questions, but there is no good reason why the schools should not be furnished examinations for at least seven months in the year.

The Superintendent's Examinations are those held at the Central School of a township or group of schools and the Final Examination at the county seat.

For the purpose of convenience the county should be grouped into schools of five to eight in number, with a centrally located school house in the centre; this is usually termed the Central School and is so called from its location; at this school, those pupils from the several schools of the group, having pursued

the seven common branches, (those classed by the law as common school branches,) and recommended by the teacher as able to take a fair examination upon the branches pursued. No pupil should be admitted to this examination, unless he has studied all of the branches required.

The superintendent holds this examination upon his own responsibility and reports to the pupils in the shape of a certificate of rank in class.

It will be noted that he simply tests the ability of the teacher to advance his pupils under the requirements of the course of study. In other words, he compares the work of one school with that of others in the same group.

As many of the patrons are present, it gives a good opportunity to explain any feature of the work not likely to be understood; it also gives the spectator a chance to select the good, or the poor teacher in the group, by the product of the pupils' work. That the pupil will reproduce that which he has learned in the same order and manner that he received, it there can be no question. How necessary it is to give him good forms and good instruction!

A Final (Annual) Examination is held during the month of March at the County Seat; all pupils who have passed the Centrals with averages of *eighty-five* or more are admitted to this contest. New questions are given the pupils and they are again examined, *graded*, and *ranked*.

A beautiful Certificate of Rank in Class is presented each, showing his standing in the county as *compared* with those examined.

4. SCHOOL RECORDS.

Under the present routine of school work, no record is kept of the progress and standing of the pupil. This is wrong; the standing of the pupil should be in some permanent form for ready reference, not only for others interested, but for the inspection of the pupil himself.

Under the plan of work here recommended for the county, three records are necessary to keep a complete exhibit of the pupil's progress from the time he enters the ungraded school until he leaves it, viz: the record kept by the teacher, and those kept by the county superintendent.

The teacher's record should show the pupil's grades for the monthly examinations in connection with his daily attendance. Here is a form in common use in those schools holding regular examinations; it will not be long until a proper record for preserving the grades made in the examinations will be furnished by the county, or by the district. Until such time the following plan is recommended: The teacher will enter the names of all his pupils on another page of the register, and the names of the branches pursued over the terms "Mon., Tues., Wed., Thurs., Fri." Under these branches he can enter the averages made on examination, and in an extra column give the general average. Teachers will thus find that a page will hold the record for a year, and will appear thus:

NAME HERE.	(MONTH HERE.)								
	Age.....	*Orth*.....	*Reading*.....	*Pen*.....	*Arithmetic*..	*Geography*..	*Grammar* ...	*History*.....	*Average*.....
1. John Tyler	14	92	88	75	70	80	75	90	81 3–7
2. John Adams	8	85	85	90	70				82 1–2
3. C. A. Arthur	18	95	92	75	96	82	68	90	84 3–7
4. James K. Polk	16	91	90	96	88	75	80	95	89 3–7
5. A. Jackson	10	60	70	90	95				78 3–4
6. Anna Symmes	6	75	80	90	75				80

By simply repeating the same names of branches, the next month will be carried forward seven spaces, and so on to the close of the year. If your school is large it will be well to ask some member of the school to copy the grades for you. At least, leave some record of the progress and standing of your pupils for the inspection of interested parties.

The above shows both the daily attendance, and the grades for the monthly examinations; thus the record takes the place of the daily register, and at the same time requires but little work to complete the pupil's record of examinations for the month.

(In cases where the record is not furnished by the district, the teacher may readily improvise a permanent record by simply writing the names of the branches pursued over the names of the days of the week for the appropriate spaces in the regular register of daily attendance.)

For the record of the Central Examinations, the superintendent should carry with him a properly ruled book in which he should enter the name of every pupil, his age, his grades, rank in class, average, name of the school from which he comes, his teacher's name, etc.; in fact, this record should show any or all items of

interest connected with his work. The following is a satisfactory form:

Record of Central Examination held at ———, ———, 188.

NAME.	*Age*.....	*Orth*	*Reading*	*Pen*.....	*History*.....	*Arithmetic*..	*Geography*..	*Grammar*...	*Average*.....	*Rank*.....	*Rank*.....	SCHOOL.	TEACHER.	REMARKS.
										1	2			

This record should be kept at the county superintendent's office and should be open to the inspection of the interested public.

The record of Final Examination should show precisely the same items as that of the Central; one form may answer the purpose of both records. It should be neatly and accurately kept and open to the inspection of the public.

5. AWARDS TO PUPILS.

Those pupils entering the Central Examinations should receive a certificate showing their grades, average, rank, name of school, and name of the Group of Districts; it should be signed by the county superintendent, or examiner.

The following form is in general use:

Macon County Common Schools.

FIRST GRADE.

Certificate of Rank in Class.

Rank No._____in a Class of_____

It is hereby Certified, that_____,

a pupil in_____School, Tp. No._____N., R._____in Macon County, Illinois, has made the following averages for the year ending_____188____.

Orthography,_____; Reading,_____; Penmanship,_____; U. S. History_____;

Arithmetic,_____; Geography,_____; Eng. Grammar_____; Average,_____

BASIS OF GRADE, 100.

and that_____is entitled to the above rank in_____class.

Central Examination at_____

_____Co. Sup't Schools.

Pupils readily understand that their rank in the Group (Great District) depends upon their general average; this is a strong lever for the teacher if properly used. If correctly used it affords the strongest possible incentive to the pupil for better work.

The Final Examination should be represented by a certificate more elaborate in detail, and should be suitable for framing. It should show the same items as that used at the Central, and in addition, the teacher should sign it, as well as the superintendent.

6. CARE OF EXAMINATIONS.

The Monthly Examinations should be upon uniform paper and should be neatly and carefully bound in a systematic manner. After the papers are graded they should be carefully arranged by Divisions and in the following order: Penmanship, Spelling, Arithmetic, Geography, Grammar, United States History, and Miscellaneous; these papers should be placed in the order of their excellence, and when this is done the printed questions, together with the certificate of the committee, should be placed upon the face of it, and over all, a neat manilla cover should be secured by the brass paper fastener. When all this is done the book should be properly labelled in ink, and kept at the teacher's desk for a time; pupils will desire to inspect it; the attention of the visitor should be called to it; directors should examine it; and the superintendent should *study* it.

The Monthly Examinations in book form should be filed at the school and should be considered the property of the district. A cabinet of some kind should be devised for the purpose of a receptacle for these examinations, provided there is no room within the teacher's desk. A very simple cabinet may be devised from a cracker box, or one similar in form, as shown by this diagram:—

1881	1884
1882	1885
1883	1886
Pens, Pencils, Ink, etc.	
Miscellaneous Work.	
Examination Paper.	
Reference Books.	

Over the face of this a door of some kind should be secured in order to protect the contents from the dust. The writer has seen such contrivances covered with a piece of calico, and nicely fastened below by tying a ribbon at the corners.

The Central Examination paper should be neatly arranged by the examiner and bound in the same manner as the Monthlies; these should be kept on file at the county office and ever be open to the inspection of the public.

The Final Examinations should be arranged and bound as those of the Centrals. These represent the best work of the county and should be given a conspicuous place in the examiner's office.

7. ANNUAL EXERCISES.

Annual Exercises of some kind may be profitably held at both the Central, and the Final Examinations. In many counties the evening of the Central is spent in holding an entertainment consisting of songs from the various schools, readings from members of the several schools, essays, declamations, etc. The superintendent usually talks for a short time upon some topic of interest concerning the schools of the county. (The best talks are those explanatory of the kind of work needed.) A trustee, treasurer, school director, or some one who has ability to talk should be enlisted to say something in the cause of education.

Many counties do not have general or special exercises at the Finals; it is believed to have a good effect upon the public generally, to have something of a literary character, to entertain those examined and the visitors for an hour. A reading by one of the pupils followed by a lively address from some good speaker has a tendency to popularize the system of common school education, and encourage those who are to be taught.

8. REPORTS OF TEACHERS, ETC.

After holding the Monthly Examination the teacher should report the standing of each pupil to its parents or guardian. Parents soon learn to look for the monthly grades of their children and become interested in their advancement as well as the children themselves. It costs but little labor to make these reports, since the grades are already upon the daily register. In large rural schools where the teacher finds such a course encroaching upon his time, he may permit some good penman from the school to copy them for him, thus enabling all to profit by the record.

Parents certainly have the right to know of the progress and standing of their children at any and all times. It is right that this should be encouraged, since it wields a powerful influence for good.

The form commonly used is as follows:

Macon County Common Schools.

SUPERINTENDENT'S EXAMINATION.

The following are the Grades and Rank in Class of
for the month ending the third Friday of*188*...

	Grade.	Rank in Class.
Reading,		
Spelling,		
Penmanship,		
Arithmetic,		
Geography,		
Grammar,		
U. S. History,		
Physiology,		
Botany,		
Zoology,		
Nat. Philosophy,		
Average,		

No. minutes lost by Tardiness, ...

100 is perfect; 75, medium; 50, poor; below this, very poor.

.....*Teacher.*

It will be noted that the report shows the pupil's rank in class for each branch. This one point is well worth the cost of time for its showing, as it is a means of encouraging the pupil to raise his *rank* if possible, thus developing the talent of the young learner and placing a definite object before him for attainment. Pupils will very readily understand that rank *one* is above rank *two;* that *three* is above *four*, etc. By all means report the pupil's monthly examinations.

In many counties a monthly report from the teacher is required. Where this is done, it should be short and easily made, as the teacher will have but little time to devote to it, and the superintendent but little to study it. The following is a *fac simile* of postal card report; it was furnished by the county and enclosed with the sealed examinations:

Report of ...*Ocean Wave*...School for the month ending the Third Friday of*October, 1883*....
No. Enrolled.....*40* No. Present to-day*32*
No. Examined*21* No. Absent*8*
No. Tardy to-day*0* No. Visitors present....*0*
The following named directors visited us during the month, *Mr. Samuel Wise*
.....
No. of visitors during month*2*

PRIMARY DEPARTMENT.

No. in class.		No. in class.	
First Reader	*7*	Numbers	*18*
Second Reader	*5*	Spelling	*6*
Penmanship	*8*	No. of minutes lost by tardiness	*15*

INTERMEDIATE DEPARTMENT.

Third Reader	*5*	Geography	*7*
Fourth Reader	*4*	History	*7*
Arithmetic	*9*	Language	*7*
Penmanship	*12*	Spelling	*11*
No. of minutes lost by tardiness	*10*		

GRAMMAR DEPARTMENT.

Fifth Reader	*19*	Grammar	*8*
Arithmetic	*8*	Geography	*10*
U. S. History	*9*	Spelling	*12*
Penmanship	*20*	Science, Physiology	*1*
No. minutes lost by tardiness	*65*		
Total No. minutes lost	*90*		

Remarks:—*The recent storms have affected my attendance. Come and visit us soon.*

.....*Teacher.*

This report is of great value to the superintendent in determining the classification of the school, as well as the attendance; the following analysis of the card clearly shows this;

PRIMARY DIVISION.

Twelve are reported as reading in this Division but there are but eight reported in penmanship; query, where are the *four* missing ones? We go to the Intermediate Division and find *three* of them; where is the *fourth*? We pass to the Advanced Division and find twenty reported in penmanship while there are but nineteen in the division, thus all are found in penmanship in this school. (*Twelve* should have been reported in the Primary Division, *Nine* in the Intermediate and *Nineteen* in the Advanced.)

Eighteen are reported in numbers in this Division while there are but twelve in it. What is the trouble? The Intermediate arithmetic is full, but there are *eleven* missing in the Advanced (Grammar) Division. There are *five* more reported in numbers and arithmetic than there are persons in the readers. *The teacher must explain.*

In spelling there are *six* less than there should be in the Primary Division, *two more* in the Intermediate and *seven less* in the Advanced Division, thus making eleven not accounted for in this braneh alone. *The teacher must explain.*

INTERMEDIATE DIVISION.

In this Division there are *two* missing in geography, and *nine* in the Advanced Division; where are they?

In United States history there are three more than in the Fourth Reader, and *ten* less in the Advanced Division, making a difference of *seven* to be accounted for.

In grammar (Language) there are *three* more in the Intermediate Division than are required, *eleven* less in the Advanced; where are the missing eight?

Other branches have been noticed.

The Primary Division lost *five* more minutes by tardiness, during the month, than the Intermediate, and one hour less than the Advanced; the Intermediate lost *five* minutes less than the Primary, and fifty-five less than the Advanced; this Division lost fifty more than the Primary, and fifty-five more than the Intermediate.

Is not this a lever for good if rightly applied? Does not the superintendent know the classification of any school at a glance? The teacher knowing what is required, will certainly make an effort to secure the required classification.

Does he not have an incentive to lessen tardiness in showing the school which division is losing most by this evil? Is there not a chance for healthful emulation?

By taking these cards for the whole county the superintendent may show the classification for the county by simply taking totals and comparing as in above example.

Many superintendents are in the habit of reporting any, or all official visits to the board of directors; this is right, and if judiciously managed is certainly productive of much good. The Directors should know just what the superintendent sees in the workings of the school, for good or bad. He is certainly more competent to see the good and bad features of a school, than the board itself. His practiced eye sees the element of success or failure in the surroundings at once. He is certainly able to advise as to the right course to pursue in making needed improvements, not only in the immediate control and management of the school, but in any necessary repairs.

In order that we may not be misunderstood in these remarks, we append a copy of a report made in 1885:

"REPORT OF VISIT TO.....SCHOOL."

"Dist. No. 7, T....,N. R....,E.....Teacher."
"Gentlemen;—I visited your school this A. M., and beg leave to submit the following report:

I find the fence around the lot in good condition except a loose board on the east side; it would be well to ask your teacher to have one of her larger male pupils to nail this fast, as it will soon drop from the post. A little care in this direction will keep this lot well fenced for many years.

The walk to the north outhouse needs a little work done upon it to keep it in good repair; some time when one of you are passing, it would be well to take a hammer and half-dozen nails and repair it. 'A stitch in time saves nine.'

The outhouse at the northwest is in fearful condition; you should see that it is thoroughly cleansed by scrubbing, then make a new seat, put the door upon *strap-hinges*, and close the opening on the east side; one of the pillars on the west is settling down and the house is following it; it would be well to place a block of wood upon this pillar; this will correct matters at this place. When this is done you should notify your teacher that you will hold him responsible for the care of the outbuildings; this will cause him to look after them.

The house is in good repair externally; the transom is nailed up, but your teacher can remove the fastenings and use it for ventilation; there is a pane of glass missing on the east side; this should be replaced as soon as

convenient, as cold weather is at hand, and some pupil may lose his life by the draft of air setting in from this source.

The walls are clean and the room is well decorated; there are a number of instructive pictures upon the wall; this speaks well for your teacher.

The desks are in good condition; the teacher's desk is orderly and in good condition.

The examinations are all neatly bound and in excellent condition with the exception of the work for last May; as Mr. ———— left it in this condition I have arranged it and bound it uniform with the others. Your present teacher will no doubt bind his last one whether he remains or not.

These examinations show marked improvement all along the line, with the possible exception of arithmetic; the work in this branch needs to be revolutionized in many respects; I have given your teacher full instructions on this point, and trust that he will make this branch a special study for a time. I find but few errors in the arrangement, punctuation, use of capital letters, etc. There is quite a contrast between the books of last year and those of corresponding months for this year, and for the better.

The classification is excellent except for one grade viz: the Fourth Reader class. Your teacher, being a stranger, did not know how to secure books for a primary history class, and hence this grade does not have enough to do, and as a result gives him some trouble in discipline. If they could have the books, this could be avoided, and the discipline improved.

The discipline of the school is a little above the aver-

age; the teacher will improve it by doing more written work, as suggested in my notes to him.

Your teacher is a good instructor, but fails to use the Manual and Guide in the way most favorable to his best interests; if more good blackboard analyses were given and more written work required, the results in accuracy and in discipline would be improved. I believe your teacher will consider these points favorably.

Upon the whole I believe that your school is doing about average work, and that your teacher is willing to be helped; he has the ability to do good work and I think will succeed.

Trusting that you will visit the school frequently, I am,

Very respectfully,

———— ————, Supt."

Such is but the average report, and as it had the effect to correct the existing troubles, was it not of much value?

Each county should have some system of reports for the purpose of correcting any or all irregularities that can be reached in this manner.

Fences, walks, outbuildings, doors, windows, chimneys, desks, floors, pumps, etc., may be improved in this way.

The discipline is often held in check by the certain knowledge that the facts are to be reported upon the visits of the supervising officer.

There can be no question as to the utility of making official reports of school visits, if judiciously made, and in the proper spirit.

9. SCHOOL EXHIBITS.

In counties where fairs are held, it pays to exhibit the school work of the county. It is an easy matter to secure this where there is anything like system in the examinations. The examiner has in his possession all of the Central and Final Examinations in book form; these are ready for display at all times. As the schools are having monthly tests it will be but little trouble to secure work from each school in the county; usually that of February offers the best representation of the district, as the attendance includes all grades at that time. By calling for this work the supervisor will have an abundance of school work for any public exhibit.

By offering suggestions to his teachers he may be able to secure much work of interest in the shape of drawings, maps, essays, etc.

In cases where no fairs are held, there should be some attempt to bring the work of the county to the notice of the public; this may be done at the Annual Institute, or on some public occasion appropriate for such display.

In this manner much permanent good may be done; the interest of the public is easily aroused, and sympathy for the *good* in school work secured.

10. CATALOGUES.

Much interest is induced by circulating catalogues containing names of pupils, schools, etc. Many teachers have published catalogues of their schools. Children

are pleased to see their names in print and will preserve them for many years. Especially are these catalogues good if they show the relative standing of pupils with each other. Here is a copy of a Teacher's Catalogue:

CATALOGUE OF

PERU SCHOOL,

(T. 16, R. 1 E. 3D P. M.)

MACON COUNTY, ILLINOIS

JOHN H. CULVER, Teacher.

SCHOOL BOARD:

N. F. BROWN, Pres. F. H. COLEMAN, Clk.
J. E. HILL.

1883—1885.

HISTORY.

"The first school house in Blue Mound township, stood in the timber east of the present frame house of Mr. Green Hill, near a fine spring of water. Mr. Daniel McCall was the first teacher in 1828, (Mr. McCall has the honor of being the first county judge, circuit clerk, and county clerk of Macon county.) Mr. Wm. Austin, now living, taught there in 1832."

This structure gave place to another in a few years which was built about six or eight rods southeast of the present site. In 1868 the present frame building was erected, and has ever since been found amply large enough, being one of the largest country school buildings in the county.

LIST OF EX-TEACHERS.

Sarah McClintock, J. W. McClintock, Ann Scott, John Cotton, Mary Rose, W. Braden, Mr. Leisure, F. H. Coleman, John Cussins, James Cussins, Miss Patton, James Jefferson, A. G. Pasley, John Trainer, Thos. Odor, Chas. McClintock, W. I. Walker, Willis Smith, C. S. Haines, Sallie Coleman, H. D. Heil, John F. Wicks, John H. Culver.

"The Teacher" at Peru, for the years 1883, '84, and '85, believing that the patrons of the school would be interested in knowing the relative standing of their children, has issued this catalogue. The grades have been taken from the county superintendent's examinations and from class work, and will be found to give a fair knowledge of the pupil's standing in his studies.

Trusting that it may prove one among the many school helps, we submit it to the patrons of Peru.

ADVANCED--1883-4. '84-5.

	AGE.	AVERAGE RANK. 1883-4	1884-5
Blankenship, Homer	20	92	83
Blankenship, Fanny	16	94	94
Coleman, Robert	18	90	
Coleman, Edgar	16	96	
Ward, Charles	20	93	
Brown, Travis	13		86
McMahon, Anna	14		88
Ward, Dora	14		87

The above have all taken the Superintendent's Central Examination.

INTERMEDIATE.—1883-4.

		AGE.	AVERAGE RANK. 1883-4	1884-5
1	*Austin, Mary A.	16	81	87
2	*Austin, Wallace	20	78	80
3	*Brown, Travis	12	72	86
4	Brown, Frank	15	65	
5	Blankenship, Nannie	12	68	77
6	Falconer, George	15	68	68
7	Falconer, Mollie	13	70	80
8	Ferguson, Lucy	16	63	
9	*Hill, Frank	18	68	79
10	*Hill, Anna	14	71	84
11	*Lynch, Eddie	14	84	86
12	McMahon, Anna	14	82	88
13	*Pasley, Robert	13		81
14	Miller, Wm. A.	17	33	
15	Robison, Eddie	13	78	
16	*Stevens, Maud	11	83	89
17	*Stevens, Lucy	13	68	79
18	Stevens, Lymon	15	72	71
19	Wornick, Harry	12	70	83
20	Ward, Dora	14	80	87

* Promoted.

PRIMARY GRADE.

		AGE.	AVERAGE RANK 1883-4	1884-5
1	*Austin, Frank	13		80
2	*Austin, Willie	10		88
3	Austin, Carrie	6		
4	*Austin, James	11		81
5	Austin, Lizzie	11		72
6	Austin, Minnie	9		
7	*Blankenship, Maud	10		83
8	Blankenship, Mac	14		
9	*Brown, Marley	11		75
10	Coleman, Mabel	7		
11	Edwards, James	7		
12	Falconer, Ollie	6		
13	*Ferguson, Hattie	12		78
14	Hudelson, Mina	9		
15	Hudelson, Clara	7		
16	Hudelson	7		
17	Hill, Henry	7		
18	Jenkins, Samantha	12		
19	Jenkins, John	7		
20	Livingston, Mamie	6		
21	Mosley, Gordon	9		
22	Mosley, Mary	6		
23	Miller, Eva	8		

* Promoted.

An Annual Catalogue of the county is of much interest to the teachers, pupils, and the public generally. This catalogue should contain a complete directory of the schools and teachers; a complete list of pupils examined at the Centrals, together with appropriate notes concerning these examinations; a perfect list of pupils attending the Final Examination, with notes concerning same; the trustees of the county; the treasurers; the boards of directors, etc.

In counties where this has been kept up for some time, all welcome the Annual Catalogue. There is no reason for not publishing the same, as it can be paid for by securing a few reliable advertisements for its pages.

A little thought upon the part of those compiling such catalogues, will readily suggest what is best to publish in this shape.

We clip a "Central" from an Annual Catalogue for 1884, and a "Final" from one of 1883.

CENTRAL EXAMINATIONS.

The following shows the names of pupils examined, schools, and teachers represented, in each Great District, in 1884:

MILAM CENTER, JAN. 28, 1884.

Harmony School.—Mina Dickson, Florence Ekiss, Geo. Freeland, John Moody, Jerusha Ekiss, Gladys Burke, Louis Moody. Mr. C. A. Lindsley, teacher.

Middlesworth School.—Charles Armstrong, J. B. Gibson, Ticie Armstrong, Emma McCool, Julia Kellar, Arthur Fleming. C. A. Hight, teacher.

Kendal School.—Elvira J. Baum, Charles Kendall. Daniel File, teacher.

Long Grove School.—Florence Hight, Sadie Warren, Thomas Smith, Alice Gibson. Elmer E. Gibson, teacher.

Milam Center School.—Sadie Rogers, Cora McKinney, Leona McKinney. Jennie Rogers, teacher.

Hale School.—Katie Dunn, Elmer VanGundy, Agnes Hogan, Katie Hogan, Lizzie Dunn. Wilbur Gibson, teacher.

Ocean Wave School.—Maud Gibson, Minnie Wise. Adda Keller, teacher.

FINAL EXAMINATION,

Held at Decatur, March 29, 1883.

Pupils.	*School.*
Mollie E. Tandy	Stringtown
Elmer Clements	Westfield
Grace Thrift	Fairplay
Grant Kirby	Kirby
Emma Lichtenberger	Excelsior
Mollie Floyd	White Hall
Hattie Jones	Prairie Chapel
William Scott	White Hall
Lizzie Adams	Argenta
John L. Clark	Bois d'Arc
Maggie Hogan	Fairplay
Edgar Coleman	Peru
Nellie Dickey	Corner
Maude Gibson	Hale
Dell Bartlett	Independence
Effie Gepford	Harristown
Belle Stuart	Kirby
Thomas Hunt	Harmony

Arthur P. Bean.....Harmony
Minnie Seeberger.....Independence
Charles Carr.....Argenta
Emma Ulrey.....The Ridge
Lona H. Bohrer.....Pleasant Grove
Julia Atchison.....White Hall
Ada Barker.....Cherry Grove
W. J. Myer.....Boiling Springs
Minnie Clements.....Blue Mound
Richard Seeberger.....Independence
Mattie Ehrhart.....Prairie Center
John Ward.....Cross Road
Jennie Mooney.....Stringtown
Edith Peverly.....Hadley
Fannie Crossman.....Hickory Point
Nellie Younge.....Wildcat
Olive Waller.....Maroa
Lula Morgan.....Stringtown
Cassius Holcomb.....Oakley
Mary Wendling.....Center Ridge
Clara Jones.....Maroa
Jennie Goode.....Harristown
Laura B. Plank.....Forsyth
Ella Wheeler.....Eldorado
May Covault.....Maroa

11. DECORATIONS AND MISCELLANEOUS.

While it is true that many of our school rooms are most tastefully decorated and scrupulously clean, it is also true that "Eternal vigilance is the price of liberty." Cobwebs will be cunningly festooned by the industrious spider, the consumption of coal in the glowing stove will silently deposit its soot on the walls and thus, aided by the dust from sweeping, will soon cover up our whitened walls and beautiful pictures.

Let us contrive frames from the cornstalk, the husk, ripened grain, cardboard, buttons, beads, yarns, wood, etc.; let us preserve all our tasteful wood-cuts of interest, picture-cards of real worth, scraps of history, fac-similes of the handwriting of our prominent men and women, engravings of different kinds, and especially those of historical events, and those illustrating home life in all its simplicity, and place them within these deftly contrived frames, and on the day set apart for this work, let us place them upon the walls of our school rooms as ornaments of our own, and as the property of the district.

The preceding is copied from the "Manual and Guide" in use in about fifty counties of Illinois.

In these counties the Fourth Friday of October has been the day set apart for this work. The plan began

in one of them in 1879, and has grown to be of universal interest in the rural schools.

The school-room is the *home* of many a poor boy and girl. Teachers, pupils, and patrons may make it more than a home for the poor—they may make it a *paradise*. Hang a picture upon the wall. Better be a French chromo worth two cents than none at all; it may be a world to some poor starving mind. Many of our pupils come from the homes of those who live in wealth and opulence, and whose parlors are decorated with all that art can suggest to make them attractive; how can we expect pupils from these beautiful surroundings to welcome the bare and smoked walls of the average school room. Is it any wonder that the school has no attractions for such? If we offer no attractions for those who come from the homes destitute of decorations, how can we hope to lure them from their unpretentious abodes by offering them nothing of greater interest?

Early impressions decide our taste or dislike for study; it is a self-evident fact, that unless we can induce a love for the school-room, we shall fail to secure a regular attendance in the schools of the United States; having no compulsory laws of consequence, we must make the schools so attractive that the little tyro shall attend regularly, and of his own accord. There is no good reason why every school in a county should not be beautifully and tastefully decorated, if the persons in authority would but move in the right direction. Simply make the move and the teachers will enthusiastically follow all reasonable suggestions; pupils will heartily endorse such a movement and the patrons in

turn will lend their best efforts to beautify and adorn the school room.

Finally, we are of the opinion that the school room, and its accompaniments, has more to do with the influences for good, than any other factor in the general education of the nation; we believe that the cheerful surroundings of the school room has as much to do with the prevention of vandalism as any other thing connected with the whole course; those school rooms kept neatly calcimined or papered, and completely decorated, will remain in excellent condition for years, and show a surprising absence of anything like vandalism; we wish to testify that there is a tendency to desecrate the walls of the untidy school room in nine cases out of ten; our observation, extending through several years of school inspection and carefully noted, proves this statement conclusively. Pupils in those tastefully decorated school rooms are more orderly, and present an appearance of refinement to that degree not noticeable in the uninviting aspect of bare walls and smoked ceilings.

The teacher is in his happiest mood within the walls of the beautiful school room, while he is petulant and gloomy within the bounds of the other. The children are happier within the former, and the attendance actually improves in its regularity and permanency, while it is unstable and uncertain in the latter.

There must then be an educating influence within the keeping of the school room worthy our serious consideration.

As to cost, there is no necessity of an outlay of money to make the beginning; there are numerous decorations

to be had for the suggestion simply, and enough to accomplish all that is desired; when the beginning is once made, there is no trouble to keep it up, as pupils will enter heartily into it.

Let the school-room of our land be made the most cheerful place in the community, and we shall have cause to expect a benign influence upon the rising generation. Beautiful surroundings exert an influence for *good*, while unfavorable ones promote the growth of the *bad*.

UNIFORM MARKINGS.

For the sake of uniformity, and for the purpose of a proper comparison, there should be some understanding as to the markings as applied to the manuscript of the pupil. It is just as easy to have the correction marks of a county uniform as not; indeed there is no good reason for having them any other way. Those marks approaching most nearly in form to those used by the proof-reader will be found to be of most value, and to be as simple as any.

Several counties in Illinois are using the following marks in grading the written works of their pupils; they have proved quite satisfactory and warrant their insertion at this place:

This ≡ shows that the letter under which it is drawn should have been an upper-case type, instead of a lower-case one, thus: richmond, margaret.

When this / is drawn through a letter and l. c. written in the margin it indicates that a lower-case letter should have been used; when this / is used and an × is formed in the margin it indicates that the letter is super-

fluous and that it should be stricken out; this ∧ indicates something omitted; this ⅋ signifies strike out or erase; this ⌐ indicates, a new paragraph.

Summary:

≡ indicates upper-case letters.

u. c. also " " "

l. c. indicates lower-case letters.

∧ (caret.) Something omitted.

⅋ (dele.) Strike out or erase.

/. Wrong letter or mark.

⌐. New paragraph.

Other marks might be used, but simplicity would dictate but few; the children will readily learn to use these in their blackboard, or written work. It may be said that the child will not likely use these correction marks as he may never read proof for the press; very well, these marks are as simple as any others that are in use, and as there should be some uniformity in this work, it is well to use that which is more generally practiced.

REGULATIONS FOR EXAMINATIONS.

1. Write upon both sides of the paper if necessary; when narrow paper is used, turn the paper from you by taking hold of the lower margin and turning it end for end. (In other words invert it as you turn it over.) If the paper is wide, and a margin is wanted at the left for binding, turn the paper over without inverting it, and leave a corresponding margin on the right, to agree with that on the left of the first page.

2. Use ink where it is possible to secure it. The paper should show the child's best efforts, and ink will exhibit his work to the best advantage.

3. Number the answers to agree with the questions, placing the number in the middle of the line, and omitting same line. Use Roman numerals.

4. Think a moment before writing upon a given topic, in order to adopt the best possible language at your own command. When the answer is formulated in the mind, write it out carefully and deliberately, striving to talk exactly to the point. Use no superfluous words, and guard against tautology at all times.

5. When you have written your answer, read it carefully, and when you find an error, use the correction marks adopted for indicating your changes; this should give you credit for possessing the requisite knowledge. Any one is liable to omit a word, misspell a word, use a lower-case letter for an upper-case one, forget to indent a paragraph, etc., and should have the privilege of correcting such before handing in the MS.

6. *Do not attempt to tell too much about a subject, but be sure you answer just what is wanted, and to the point. When a question is answered, stop short, without making any additions.*

The following will suggest the form for this kind of work:

I.

The Ohio river rises in the western part of Pennsylvania, flows southwest, separating Ohio, Indiana, and Illinois, from Kentucky and West Virginia, and

empties into the Mississippi river at Cairo.

II.

The equator is a great circle whose plane cuts the earth, equally distant from the poles.

III.

Cape Farewell is the southern extremity of Greenland.

IV.

By walking south from this latitude, your shadow becomes shorter, as you approach the vertical rays of the sun.

V.

Christmas occurs on December 25, in Australia, but this is midsummer in that latitude.

SHOULD PUPILS HAVE THE OUTLINE?

It has been a question among prominent educators whether pupils should have a printed or written outline or not. Those who have tried the experiment of furn-

ishing a printed outline are enthusiastic in its praise. Their arguments as compiled are about as follows:

1. The pupil should know the limit of the examination for the month as well as the teacher. *There should be no secret in school work.*

2. With the outline before him the pupil has a guide for private study which he would not otherwise have; pupils will frequently study considerably if they know *what* to study; they are furnished both the *what* and the *how much* in this outline.

3. By having the outline at hand the pupil has a guide to follow in selecting the terms for definition, rules to be learned, places to be located, etc.; this gives him employment at all times, and is a strong incentive to have him do more than he would ordinarily do without this assistance.

4. It saves the teacher much unnecessary labor in the way of copying or making up outlines from day to day; as the pupil cannot select the practical from his text it is absolutely necessary that some one should do this for him; hence the printed outline furnishes all this without the consequent labor of preparing it for him; it saves the pupil much valuable time, as he must copy the outlines from day to day.

5. By having a printed outline furnished by the county it is uniform and offers an incentive to both teacher and pupil not found in the separate outline of a district only, as no two teachers will make up the same terms, rules, definitions, etc., to be found in the outline best applicable to the county.

6. The use of a topical outline furnishes the pupil with the key to topical study, makes him independent

to a certain degree, not attainable by the usual text book method of study, and leaves him free to find his information wherever he may.

7. Pupils have no apparent lack of employment on the score of not knowing where the work may be found. When a lesson is learned they may find what is next wanted by reference to the outline. Bright pupils are thus encouraged to push on and complete the course as soon as possible.

8. Having the outline at hand pupils get a comprehensive view of a branch long before they complete it; in other words, they are enabled to see what is before them for the year, and are thus encouraged to do part of it in advance of the regular lessons.

9. Having the printed outline the pupil can be directed to review any part of the work at any time. A simple direction will enable him to turn to the topic desired for review, and he can at once prosecute the labor without further direction.

10. Summing up all the points in favor of furnishing the printed outline to the pupils, the strongest argument in its favor is the fact that it puts the pupil upon his feet and makes him an independent investigator after the topical plan of study. The text book plan of question and answer will not accomplish this.

IS THE OUTLINE OF ADVANTAGE TO TEACHERS?

The outline is of inestimable value to the teacher for the following reasons:

1. He is furnished with a definite amount of work to be done each month. It is true that this is the minimum amount of work as selected by the superintend-

ent, but the good teacher will do more by having it than otherwise, and the poor one will at least do the amount outlined, and do it much better than he would without this guide.

2. The teacher understands that if others are able to do this work, he should be expected to attempt it; his desire to accomplish it will be imparted to his pupils, and thus encourage them to greater effort. The incentive thus induced is almost invaluable.

3. The teacher's desire to accomplish at least the minimum leads to the question, "How shall I do this?" or, "What is the best method of doing this thing?" or, "How do you do this?"

The result is, he obtains better methods from his fellow teachers, and in many cases invents some little help which he in turn gives to his fellows as an answer to their inquiry.

4. There is a strong power back of all this which says, "if I do this well, and succeed in getting good grades from my pupils, I shall satisfy my employers, and possibly be retained at an advanced salary; or, if I succeed in doing first-class work, I shall be enabled to get into a school of higher grade. If I do not follow the outline pretty closely, my pupils will not do well, and it will be known by every one within the township."

5. Actual use of the outline in a given county for a number of years results in the retention of good teachers at a better salary for a number of terms, and the rejection of the poorer class at any price. The use of the outline, then, makes the teacher's tenure of office more permanent, and tends to improve the profession of teaching by making *professional country teachers.*

6. When the teacher thoroughly understands how to use the outline and how to secure the best work from it, he holds the key to the situation so far as discipline is concerned. It is an old and a trite saying, that "the secret of school government is to keep the children busy." Just in the proportion that the children are kept busy, will the necessity for attempting to improve the discipline of the school lesson. Thorough organization and classification with the good executive at the head, will secure all that is desirable under the head of school discipline. The outline provides for a thorough classification in the rural school; their classification is based upon thorough organization and supervision; when the organization and the classification is perfected, the outline is well in use; when the pupil knows how to use the outline he is ready to cultivate the "school virtues," viz: regularity of attendance, truthfulness, promptness, obedience, kindness, neatness, diligence, earnestness, and thoroughness in the preparation, or the recitation of the lesson. The school which takes hold of the outline, and falls in with the plan of organization, has all the discipline it needs so far as good order is concerned. Diligence in study will banish the necessity of force in discipline. *The outline keeps the pupil employed.*

7. The outline requires much written work when successfully followed, this will give employment to both the younger and the older pupils. If judiciously directed it will keep all the younger pupils busily engaged in the preparation of slate work, and the older ones in the topical prosecution of their lessons.

Hiram Orcutt, in his "Discipline of the School", says: "Both the master and his pupils must work. In-

dolence in him begets idleness and recklessness in them. Life, energy, and industry manifested by him, will be at once reproduced in them. The teacher must work to fit himself for his high calling and to elevate his profession. He must work for his school, to interest and benefit his patrons, to rouse and inspire his pupils, and to prepare himself for his daily teaching. Indeed, the true teacher is always reading, thinking, or acting for his school. He succeeds, also, in making his pupils work; not so much, however, by direct effort, as through the influence of a well managed and well governed school. With children of common physical and mental ability, it is not often necessary to enforce industry. It is the teacher's business, rather, to direct and control this activity, in a systematic process of self culture and development."

8. The same authority says: "Study is mental gymnastics, systematic thinking, and the end in view is development and culture. One great object of the school is to induce and direct this mental exercise. Study is of the first importance, and hence must have the first attention of every practical teacher. In the organization, classification, management, and government of his school his chief aim is to secure systematic thinking. To this end he arranges certain hours of the day to be especially devoted to study."

When the school is perfectly systematized so that each and every pupil has all the work that he can do, and so pleasantly divided between the hours of recreation as to induce the greatest effort, then the discipline is all that can be asked. It is the systematic arrangement of all the powers within the reach of the teacher that pro-

duces order, zeal, interest, and love for school labor. On the other hand, teachers fail for the want of this systematic arrangement as suggested by the classification and division of time by the outline.

THE PROGRAMME.

We know of no better general programme than the following:

TIME.		RECITE.	STUDY.				
A. M.	Min.	All Classes	1st Class	2nd Class	3rd Class	4th Class	5th Class
9:00	5	OPENING.					
9:05	10	READ.		Read.	Read.	Read.	Arith.
9:15	10	READ.	Copy.		Read.	Read.	Arith.
9.25	15	READ.	Copy.	Copy.		Read.	Arith.
9:40	15	READ.	Num.	Num.	Arith.		Arith.
9:55	20	ARITH.	Num.	Num.	Arith.	Arith.	
10:15	15	ARITH.	Num.	Num.		Arith.	Gram.
10:30	15	RECESS.					
10:45	5	NUM.			Note b'k.	Arith.	Gram.
10:50	15	ARITH.	Copy.	Copy.	Note b'k.		Gram.
11:05	20	GRAM.	Read.	Copy.	Lang.	Lang.	
11:25	10	READ.		Read.	Lang.	Lang.	Hist.
11:35	10	LANG.	Copy.	Read.			Hist.
11:45	15	WRITE.	Copy.				
12:00	60	NOON.					
1:00	15	READ.	Read.		Read.	Note b'k.	Hist.
1:15	15	READ.		Copy.	Read.	Geog.	Hist.
1:30	20	HIST.	Copy.	Copy.	Read.	Geog.	
1:50	15	READ.	Copy.	Copy.		Geog.	Note b'k.
2:05	15	GEOG.	Copy.	Copy.	Note b'k.		Geog.
2:20	10	RECITE.			Note b'k.	Arith.	Geog.
2:30	15	RECESS.					
2:45	20	GEOG.	Read.	Read.	Copy.	Arith.	
3:05	10	READ.		Read.	Spell.	Spell.	Note b'k.
3:15	10	READ.	Copy.		Spell.	Spell.	Spell
3:25	10	SPELL.	Read.	Copy.			Spell.
3:35	15	SPELL.	Read.	Read.	Note b'k.	Note b'k.	Note b'k.
3.50	10	ORAL L.					

The dotted lines denote recitation; the term, note book, is used in a general sense to denote slate or tablet.

Each teacher must modify the above to suit the conditions of his school.

PRIMARY DIVISION.

COURSE AND OUTLINE OF STUDY.

APPROXIMATE TIME—TWO YEARS.

STUDIES OF FIRST AND SECOND READER PUPILS.
- Reading and Language.
- Spelling.
- Penmanship.
- Numbers.

CLASSIFICATION.

READING.—In many of the country schools it will be found to be difficult to secure a proper classification in this branch at first, owing to the different attainments of the pupils. If the pupils are put at work upon their own vocabularies at once, they will soon form themselves into classes, and move along together. By a little attention the slow pupil may be assisted to reach the attainments of those who have the start of him, and thus reduce the number of classes For a time the pupil should not have the reader, as he must learn to recognize the script and printed forms of the words he already uses; place all such in one class, and if possible place all others in another class; in many cases, no First Reader will be needed, or *vice versa*. At any rate study to reduce the classification in this division to the fewest number of classes possible.

LANGUAGE.—Language, if successfully taught, must run through *all* the work in the school course; the best

opportunities for doing this are afforded in connection with Reading; each lesson preparation should have some point in Language clearly brought out.

For reasons suggested above, the Language work is mingled with the course in reading. No provision is needed for a class in this department of work.

SPELLING.—No classes should be formed in this branch in this division; Spelling is best taught in connection with the Reading lesson. This is quite fully illustrated under the head of Reading, and if closely followed the pupil will soon be able to spell the words which he uses in his conversation. If you have the speller in the primary grades, it will need to be used to some extent in order to avoid unnecessary criticism; a little patience, together with the use of your better judgment, will soon eradicate the tiresome speller.

It is a serious mistake to put the speller into the hands of the pupil, and expect him to be able to memorize long columns of words, that to him have no meaning. Unless he is familiar with the *use* of the words, he will receive but little benefit from such work. If your pupils have the speller, it will be necessary to use it to some extent in many localities, to keep down the criticism of patrons who honestly believe that "*this is the way to learn to spell*," since they used the speller when they attended the country school. By using it at such times as may seem best, and by not requiring it to be purchased by those pupils who are entering these classes, the teacher will soon be rid of this book, reduce his number of classes at least *one*, and thus complete the first step in the direction of a better classification.

It requires patience and good judgment to banish the

speller from the Primary Division in back-woods districts, but the live teacher can do this as effectually here as elsewhere; the *people* will ever listen to reason, when judiciously administered.

For methods of teaching Reading and Spelling, see the suggestive methods under the head of Reading in this division.

PENMANSHIP.—Form no class in this division, as it is best taught by ever presenting good forms from the board. In all the script work for the division, use the utmost care to secure correct forms of the letters. Every word, every sentence presented to the child, should be a model of neatness and of exactness. *It is of the greatest importance that the child should see nothing but model forms in all of his first work.*

Have Primary pupils attend to all the aids and suggestions given in the class exercise of Penmanship for the school. The members of this division will be benefitted by hearing all your directions, and should be required to take part in the daily writing exercise.

NUMBERS.—In Number work it is necessary to hold the child accountable for all the work given him and hence it is economy of time to place in classes; for the oral drills, they should be called to the recitation seat, or be made to stand, in order that the instructor may be able to hold the attention of all. Usually brief oral drills may be given in connection with the reading lesson for a time, but it will be found necessary to place them into classes sooner or later. Do not suffer more than two classes, (if possible to avoid it,) and contrive to merge these into one as soon as possible. By carefully directing the number work from

the board, the First Reader pupils will soon do Second Reader work. Again, the copying, and the object work at the desk may be inspected at short intervals, as the teacher walks about the room in the discharge of his duties. *Do not permit yourself to give an explanation while a pupil is reciting.*

READING AND LANGUAGE.—Books—Charts, First and Second Readers.

Object—To teach the pupil the correct printed and written forms of the words he uses, and to preserve or retain his natural mode of expression.

Materials—Blackboard, pictures, objects, ruled slate, long pencil, sponge.

Recitation—(1) The pronunciation of the word as a whole.

(2) Spelling by sound.

(3) Spelling by letter.

(4) Name of diacritical marks. Daily review and careful drill on the above points.

Have the child *see* an object; have him to talk about it; secure direct statements as to what can be done with the object or by it; tell what it has, etc. Show him a *picture* of the object; what things can be said of the object that cannot be said of the picture? Thus, "the cat laps milk." "She is good." "She catches mice," etc.

When the *object* and the *picture* are clearly before the child's mind, write the word representing the object upon the board. (In script.) Let the pupils point to the *object*, the *picture*, and the *word* in turn; keep this up until the child is able to find the written word in many places upon the board, when combined with other words.

Now print and write the word side by side, having pupils name them. Have pupils find each of the forms and continue until they are recognized wherever found.

When you have enough words to build a sentence, do so; present the statement first, then the question; use period and question mark.

In the very first lesson use the word method. Teach *a* and *the* at the first in connection with the nouns they limit. Teach the first few lessons from the board with the aid of pictures and objects, but in a short time use the First Reader.

After the lesson in the book has been read two or three times, place a lesson on the board, using many of the same words in the book, but in different combinations, thus ascertaining whether the word has been learned, or the sentence in which it occurred committed to memory. Try to have the children talk about the objects whose names are being learned.

Seek to establish freedom and familiarity between yourself and young children. Your success in teaching Reading depends entirely upon yourself.

It is very important that the child should be put at copying (*in script*) the first word learned, immediately; he should write the *new* words immediately after learning them; he should copy the first sentence formed by the teacher. As many sentences as possible should be formed from the words learned; thus, from the words it, cat, is, my, may be formed:

It is my cat.

Is it my cat?

When a new word is added, another sentence should be formed and copied.

If there be a secret in the successful teaching of reading, it is this,—never permit the pupil to find a word which he cannot readily pronounce at sight.

When words are thoroughly learned, they should be used in numerous sentences until they are used in as many ways as possible.

By this means the correct form of the written words becomes familiar to the pupil, and by constant and continued repetition the words are thoroughly learned. The use of *a* or *an*, and *the*, are thus taught correctly, both in connection and pronunciation. Teach *this* and *that*, *these* and *those*, *here* and *there*, *is* and *are*, *was* and *were* in the same way. Vary the work by asking "What is this?" Write and have children read and copy: This is a —. "What is that?" That is a —. Combine them thus:

This is a —, and that is a —.

These are —, and those are —.

This is —, and these are —.

That is —, and those are —.

Use but one form at a time, and fill the slates; you can not use the word too much or too often, but you can use too many different forms. Again we say, "make haste slowly."

As you progress, make out sentences with blanks to be filled, containing groups of words used together. The following list is suggestive. The teacher may continue at pleasure.

It is a hat.	This is a ball.	I see the man.
It is a —.	This is a —.	I see the —.
It is a —.	This is a —.	I see the —.
It is a —.	That is a —.	I see the —.

It is a —.	That is a —.	I saw the —.
It is a —.	That is a —.	I saw the —.
It is a —.	That is a —.	I saw the —.

Here is a pen.
Here is a —.
Here is a —.
Here is an —.
Here is an —.
Here is an —.
Where are the slate and pencil?
Where are the — and —?
Where are the — and —?
Here is a—, and there is a —.
Here was a —, and there was a —.
Here are —, and there were —.
These are pears.
These are —.
These are —.
These are —.
This is a black cap.
This is a black —.
This is a black —.
That is a black —.
That is a black —.
This is an old —.
That is an old —.
The man has a book.
The man has a —.
The man has a —.

Has the man a —?
Has the man a —?
Can the hen —?
Can the rat —?
The hen —.
The hen —.
The hen —.
The dog will —.
The dog will —.
I have a —, you have a —.
I have a —, he has a —.
Can the — run? Yes, the — can.
The — is — the —.
Where is the book?
The — is — the —.
The — is — the —.
The — runs.
The — runs.
The — runs.
The — runs.
The — runs.
The — is white.
The — is white.
The — is white.
The — is white.
The — is white.
The — is white.

Try to find pictures illustrating the selected words for a time, *always having pupils to copy words in script.*

It is well to find some First Readers, or specimen pages of such, cut the pictures from them, paste them upon manilla paper, or cardboard, together with some

of the words in script and print found upon these pages. These can be used by the pupil in the preparation of his lesson in many ways suggested by the thinking teacher.

In your first work with the pupil, endeavor to make the printed and written word as much objects of sight as the objects themselves.

Note how the pupil acquires Language as he advances, and this will be of invaluable aid to you in subsequent Language work.

Pupils should be required to write statements as soon as ten or fifteen words are learned. At first a simple statement should be drawn from him and carefully written by the teacher, calling attention to the capital letter and the period. The pupil should copy this carefully, and it should be inspected by the teacher with directions for corrections.

Review the words learned at preceding recitation, spell them from board or slates, spell all the new words as the pupil advances, and have all of them written.

Suppose you have this picture:

ăt	ĭt
ăn	sĭt
făn	ĭn
căn	tĭn
păn	ĭs
răn	hĭs
măn	dĭd
ăs	bĭd



From a man, a girl, a boy, a fan, a pan, a hat, a can, a shoe, &c., you may find *a* and write it as above; from an ax you may obtain *an*, &c. By this means learn all the words upon the border of the picture. From these you can build sentences.

The same picture may be used for the language work as in the pictures noticed.

I see (a, or an)  in the picture.

By such a scheme you may economize time in directing pupils to a very great extent.

The child should not be required to print in the preparation of his lesson, but should be required to prepare it in script.

"There is no need for the child to print."—*Hewett.*

The child enters school with a vocabulary of from two hundred to six hundred spoken words; he is able to use these in making himself understood among his fellows; but he does not recognize these words in the written or printed page. The first thing to do is to teach him these words in print, and in script. If the chart is at hand, (and is one of modern date,) then we have the picture and the word to guide us. If this cannot be had, then the teacher must make his own chart. Here is a very simple plan for making such; cut some pictures of objects from stock catalogues, newspapers, almanacs, etc.; paste these upon a sheet of wrapping paper to be had at the dry goods store for a penny. Cut

words representing these objects from the same source and paste them in appropriate places. Write the same words in good script and place them to right of the printed words; rule balance of sheet to agree with proportionate ruling upon slate. Write the words which the pupil has already learned, so as to form sentences; as soon as possible, build up a little story from these words; in doing this kind of work, the teacher will soon have a chart that will last him for years. (Of course he would need to make several pages of such work, in order to get his one or two hundred words so necessary for a preparation to read, even in the First Reader.)

If the teacher has had no experience in this selection of words, let him read the first ten pages of all the First Readers at his command, and list the words found in them. He should find over one hundred in a half dozen different readers. Let him use those words which seem to him most familiar to his pupils. The appended list will suggest itself to the use of the teacher, while he can compare it carefully with the reader or chart in use and add such words as his judgment dictates:

ă	back	carry	hat	mat	swam
an	bat	Dan	has	map	Sam
at	cat	dare	hand	man	shall
as	candy	damp	had	mad	sand
ax	can	fat	have	nap	sat
apple	black	fan	happy	nag	stand
am	bang	flat	happen	pat	stack
Annie	bank	Frank	jack	pan	scratch
Abby	band	flag	lad	plank	that
Alice	cap	Fanny	lamp	Rab	Tab
Ann	catch	flap	lamb	plant	than

bad	candle	gnat	land	rat	thank
bag	cattle	glad	lap	sad	wax
ĕ	bent	get	neck	set	them
Emma	Ben	head	next	sent	tell
end	bread	held	pet	sell	wet
egg	dead	kept	pen	seven	well
bed	Fred	men	peg	sled	when
beg	shed	met	rest	step	west
bet	fed	net	nest	Shep	yet
bell	felt	many	red	then	yes
bend	fence	Ned	send	tent	guess
ĭ	chill	hid	mix	silk	tip
in	dip	hill	Mr.	sift	tin
ill	did	him	Mister	sill	trick
is	Dick	hip	nickel	sing	trim
it	dig	his	pig	spin	thing
bid	dim	hit	pick	spit	vim
big	dizzy	jill	picture	stick	win
bill	drip	Jip	pretty	silly	wing
been	drill	kill	pillow	six	will
begin	fill	kid	quill	string	Willy
bit	fit	lid	quick	sister	wind
brick	fist	limp	quit	swing	window
brim	fix	lip	rich	swim	willow
chick	frisk	lift	rid	ship	wick
chicken	Frisk	little	rill	think	wilt
crib	fish	live	rip	till	wish
cripple	finger	milk	rim	this	whip
chip	give	mitten	sit	thin	chimney
gift	miss	sink	thick	zip	list

ŏ	Bobby	doll	hop	pot	stock
of	cot	dolly	hot	pocket	stop
off	cod	dot	hog	pond	spot
on	coffee	drop	John	pop	sod
ox	cog	fog	log	prop	top
box	collar	fox	lot	rot	trot
body	copper	frost	lost	rock	toss
bog	cost	from	not	rotten	Tommy
bonnet	dog	got	knock	sorry	was
ū	dew	few	mew	new	you
chew	your				
â	chair	hair	pair	scare	there
air	care	mare	pear	stair	tear
bear	dare	fair	where		
ä	calf	half			
ŭ	bun	cut	dust	hunt	lump
under	Bunny	crumb	dug	hum	love
uncle	bud	come	dull	honey	dove
up	bug	done	fun	hurry	none
but	cud	dunce	funny	jump	pup
butter	cup	duck	gun	just	enough
ā	gay	may	play	stay	train
ate	gate	mail	plate	skate	trail
came	hay	mate	place	stain	they
cake	hate	make	pain	sail	way
day	jail	mane	paint	save	away
Daisy	Kate	name	pray	take	wake
fail	late	Mary	say	tail	waken
gave	lay	pay	slate	tame	

ē	bean	fear	leap	need	seed
eat	bleed	flee	Lee	peep	seat
ear	creep	feed	leave	please	seal
easy	cheap	fifteen	lean	pea	seem
eating	cheat	heel	leak	read	seam
be	deep	hear	me	reap	tear
bee	dear	he	meal	she	tea
beat	feel	knee	meet	see	team
but	free	kneel	near	sweet	we
ī	dry	Fido	live	mile	sly
Ī	die	hide	fife	nine	slide
ice	dime	hive	like	nice	slice
by	five	kite	lion	pie	tie
bind	fry	knife	line	pile	time
bite	fly	kind	my	pine	try
cry	fine	lie	mine	ripe	why
ō	colt	goat	most	rope	shone
oh	comb	hold	no	roan	slow
O	door	hoe	nose	stone	toe
old	floor	home	know	sow	throw
bow	flow	lone	pole	so	though
bone	four	alone	post	snow	wore
broke	go	low	row	show	woke
cold	crow	grow	more	rose	yellow
á	basket	fast	dance	chance	last
ask	cast				
a̤	call	bôrn	fall	law	paw
all	caught	côrn	fôr	môrning	saw
ball	caw	ôr	jaw	môrn	warm
ó	cook	good	look	put	wood
book	wool				

ŏ	Lucy	stool	too	through	who
do	school	to	two	threw	into
ow	cow	hour	mow	out	town
brown	how	loud	now	owl	about
bow	house	down	mouse	our	
är	barn	dart	lard	mark	tar
are	car	hark	jar	part	tardy
arm	cart	harp	lark	papa	tart
ark	carpet	harm	large	park	yard
bar	Carlo	heart	mamma	start	
bark	dark	hearth	marble	star	
ẽr	brother	Walter	hurt	girl	Robert
other	mother	water	bird	sir	Albert
her	sister	flower			
oi	boil	coil	soil	spoil	toy
oil	boy	joy			

Possibly some words of this list belong more properly to the Second Reader. All of them, however, will be found within the comprehension of nearly every child as it enters the school. Teacher should select such as suit the advancement of his class, finally using all of them.

The use of the blackboard is better than books or charts in teaching beginners to read. Teachers do not need the chart as much as they think. The words and sentences made by the teacher's hand are similar to the words spoken by the voice; the children are more easily interested and enlisted by one word or sentence on the board, than by whole pages of printed matter. The words can be written in every order quickly, erased, and re-written, thus bringing out the perception and memory of the little ones.

Constant attention should be given to Language, and much composition in easy, short sentences required in this division. Let Language receive all the attention which its importance demands.

It is very important that the teacher insist upon neatness, correct capitalization, and punctuation, at all times.

Write sentences upon slips of papers, and instead of the new word, insert the picture; thus:

It is my —— (here insert neat picture of object.)

My —— is on my ——.

The —— will keep me dry.

Have pupils copy these sentences, inserting names of objects. Teacher must inspect all writen work or pupils will grow careless, and not do all the work assigned.

Here is a good exercise for spelling the words learned; the sentences are selected from F. W. Parker's tract on spelling, and suggest the kind of work to be done at all times in this division. Place as many sentences upon the board as you think best, have them copied upon slates, read in class, and corrected when misspelled.

There is a mat.
This is a hat.
This is a mat.
This is the cat.
I see the rat.
I see the mat.
I see a man.
Here is the hat.
Here is a man.
Here is a cap.
Where is the man?
The cat is on the mat.
The rat is on the mat.
The cat is on the chair.
The black cat is on the chair.
The bell is on the mat.
The bell is on the desk.
The cat is in a pan.
The rat is in a box.
Where are the cats?
Where are the bells?
The red chair is on the mat.

Where is the pan?
Where is the can?
Where is the fan?
I am glad to see you.
I am glad to see my cap.
The man ran.
Here is Frank.
I see a fat cat.
I see a fat rat.
Do you see the fat cat?
Do you see the man?
Do you see the black cat?
Frank had a hat.
I had a fat cat.
Did Frank have a hat?
Where was the hen?
Where were the men?
They were in the house.
Where have you been?
Whose cat have you?
Whose hat have you?
The rat ran.
The hen ran.
This is my sled.
The bread is in the pan.
I met a man.
I led the lamb.
Can I run?
Can the rat run?
The cat can run.
The rat can walk.
There is a box.
There is a fox.
The box is on the table.
The blocks are on the table.
The fox is in a picture.

Always examine all the work of the pupils; see every thing they do. Never permit them to do any work but their best. Less than this is carelessness. Do not permit carelessness. Look out for the trifles.

As the children advance in the First Reader, require them to write a portion of each lesson on their slates, observing carefully capitals, spelling, punctuation, quotations, and the apostrophe. *Be sure* to examine the work carefully, and return it to them for their correction. *Do not assign too much at a time.*

Practice oral syllabication, *i. e.*, let the pupils distinguish the number of syllables a word has, and recognize the syllables as a unit.

Before beginning the Second Reader, test the pupil's

ability to read in some other First Reader than his own. It would be well to have pupils read several First Readers, if they can be had. Teach the child to express the thought naturally by a series of easy questions.

Require the pupils to arrange the words of the lessons in alphabetical order with reference to the first letter of the words, thus:

and (4)	bureau	can (2)	dark (2)
afraid (2)	but (3)		didn't
	basket		
as (2)	big (2)		
away	boy		
am	brave (2)		
all			
a			

These words are selected from a reader lesson in a Second Reader, and serve to illustrate the order of arrangement. The figures refer to the number of times the word occurs in the lesson.

Use all the supplementary reading that you can secure. Make much of this "recreative" reading by permitting the pupil to carry it home with him in order to read it to his parents.

Require pupils to bring to the recitation a portion of each lesson neatly aud correctly written on their slates.

In assigning the lesson, point out a word or two, or groups of words to be changed by the pupils when writing their lesson.

Know that your pupils can spell every word in the lessons, paying particular attention to the common and easy words. Test the ability of the pupil to pronounce every word in the part he is to read before reading it, and require him to answer the questions "What did

this?" "What did he do?" "When?" "How?" "Why did he do it?" or "Why was it done?" etc.

Insist upon the proper position of both book and pupil in reading. Do not let pupils point to the words while reading.

Train the pupil to see words not separately, but in groups, or to see a few words in advance of those he is pronouncing.

Do not crowd pupils ahead in reading books. Better read several books of the same grade.

Arrange the words in alphabetical order with reference to the first two or three letters of the words. (In the Second Reader.)

Combine written and oral spelling, using your best methods to secure accurate spelling.

Be sure the pupil can readily read the script lessons in his reader, and write from dictation.

Read a few sentences or paragraphs as review each day.

Be sure the pupil understands what he is reading.

Have words written upon slates, and read from them before spelling.

Cultivate soft, natural tones, but do not allow drawling.

Keep a list of the words learned on the blackboard, in print and in script form, adding new words as they are learned. Begin every recitation by reviewing these. Frequently change the order of the words in the list.

Teach the pupils to recognize *at sight* groups of words, as "the bird," "on the tree," "the boy runs," etc., etc.

Never allow a pupil to attempt to read a sentence until he can pronounce readily *at sight* every word in it.

Without this care, the pupil loses his naturalness of expression and learns to hesitate, drawl, etc.

It will be noticed that no provision is made for spelling classes in this division; spell everything in the reader as the class progresses, but do not ask pupils to purchase the speller; if it is found in their hands, do as suggested for the primary arithmetic.

Have pupils learn the Arabic and Roman notations as they advance from lesson to lesson, or from page to page in their readers.

It is well to write sentences from some reader not in use, cut the words apart, and have pupils arrange them into sentences at the study desk. Teacher must inspect these, however.

Let the teacher take a reader, place the words of any lesson (one that has been studied is best) in lines upon the board, but not in order of their natural arrangement. Have these words arranged into good sentences. The following lesson is suggestive:

Pet a was Zip great; was so Betty; cross sometimes was Zip; boys he like not did; girls like he did? know do not I; old an was hen Betty; was small she; eggs lay she did? did she sometimes; an egg laid she when loud cackled she.

Make lists like the following, blanks to be filled with *is* or *are:*

1. The horse — black.
2. — the horse black?
3. The book is new.
4. — the book new?
5. The boys — playing.
6. — the boys playing?

Change *is* to *are* and *are* to *is* in writing these statements:

1. The cow is old.
2. The field is green.
3. The sun is bright.
4. The moon is shining.
5. The day is cool.
6. The flowers are pretty.
7. The fences are new.
8. The roads are dusty.
9. The nights are cool.
10. The scholars are busy.
11. The men are working.

Have the children find in their books five or more words that are the names of persons; look at the first letter of each word; copy the names.

Find five words that are the names of places; look at the first letter of each word; copy the words.

1. Write your name.
2. The name of the place where you live.
3. The name of the state.
4. Your father's name.
5. Your mother's name.
6. The name of a place you would like to see.

Always give your full name when asked, and be able to speak and write it so plainly that it cannot be misunderstood.

The pupils should be taught that the last name, or family name, is the *surname*, and that the first or given name is the *Christian name*. The full name is both the Christian and surname combined.

1. Write your full name.
2. Write your Christian name.
3. Write your surname.
4. Write your teacher's surname.
5. Write the name of your country.

In all of this work, and indeed in all the work done by the pupils, be very sure to examine what they do. Use the markings given elsewhere in this book.

The teacher should have in his possession some good book on Language, in order to follow up successfully the work already begun.

It is best, and at the same time appropriate, to give a certain amount of Language work in this division that shall develop some of the primary ideas of Geography. After a little drill it is an excellent plan to write sentences containing blanks to be copied, filled, and read in class.

The light is called ——, and the darkness ——.

Days are long in ——, and short in ——.

Winter evenings are —— than summer ——.

The day begins at ——, and has —— hours.

A desk is at my —— hand and a table at my ——.

My teacher is in —— of me and the door at the ——.

I live —— here, but Fanny lives ——.

The wind blows from the —— to-day.

The sun rises in the —— and sets in the ——.

My shadow falls toward the —— at noon, toward the —— in the morning, and toward the —— at the time of sunset.

Continue this at pleasure.

If the teacher thinks best he should permit his Primary pupils to enter the class in oral Geography outlined in the Intermediate Division of this book. Second Reader pupils will thus get some clear ideas of the first steps in Geography.

COMPARISONS.

Have pupils fill out the blanks with appropriate words in the following list. Write the list in a column on the board, also the sentences with blanks; let the children combine them. Talk about each one of these sentences, bring out the meaning clearly, and do not try to talk of more than two or three at one time.

bat	fox	ox	grass	mule
bee	lion	razor	day	snail
crow	monkey	hare	glass	vinegar
kitten	eagle	iron	valley	cricket
lead	lamb	night	grater	flash
silk	honey	sky	gall	feather
valley	gold	blood	mountain	lead
ink	crystal	snow	valley	snow

As shy as a ——.
As strong as a ——.
As mischievous as a ——.
As cunning as a ——.
As busy as a ——.
As black as a ——.
As swift as an ——.
As stubborn as a ——.
As blind as a ——.
As slow as a ——.
As light as a ——.
As quick as a ——.
As lively as a ——.
As heavy as ——.
As sour as ——.

As high as a ——.
As low as a ——.
As smooth as ——.
As rough as a ——.
As green as ——.
As white as ——.
As black as ——.
As red as ——.
As blue as the ——.
As hard as ——.
As soft as ——.
As sharp as ——.
As clear as ——.
As sweet as ——.
As bitter as ——.

As light as ——.
As timid as a ——.
As good as ——.
As dark as ——.
As tough as an ——.
As innocent as a ——.

Write a few words each day upon the board from the following list, have the pupils give the plurals. Then write the plurals and have pupils give the singular, and vice versa:

ant	bed	boy	dinner	goat	jar
apple	——	broom	dish	girl	lamp
ax	burr	bell	dipper	hat	lamb
bat	bucket	cap	board	hand	land
cat	bonnet	car	finger	horse	lap
can	cent	cow	face	hog	——
barn	carpet	dog	fire	ink	mat
box	———	duck	fan	jug	moon

Place this or a similar form upon the board; have the pupils copy the sentences and mark the vowels as shown by the marked vowels at the left.

ĭ	This is a mill.
y̆	Willy, where is your cap?
ĕ	I fed my hen.
ŭ	The bee hums.
o	Some of the boys will come.
o̤	The book is by me.
o͝o	The wool is cut from the sheep.
u̇	The school is full.
ă	I am happy.
ä	The dog barks.
á	Ask the boy for his knife.
ŏ	The ox eats grass.
a̤	He was here.
ā	The gate is shut.
e̤	I am eight years old.
â	The air is cool.
ê	There are six left.
ẽ	I saw her.
ī	The bird sings.
û	The cat has fur.
ū	The bird sings in June.

The use of a or an.

Let the teacher make a list of words similar to the following; have the pupils write them, placing *a* or *an* before each. Have them then form these into sentences, using a or an:

ax	bear	eye	orange	inch	deer
ant	box	inn	owl	oil-can	elk
awl	boy	oven	organ	idle boy	ear
ape	bonnet	axle	ark	elephant	leech
apple	boot	hour	lark	lion	horse

For busy work at seats have pupils make two columns on their slates; in one let them copy the first ten words of the following list in the left column; in the right let them copy the word of opposite meaning. *Do not by any means neglect to inspect this work.* Do not give them too much at a time:

up	down	open	south	kind	dull
hot	cold	deep	west	hard	last
east	wet	slow	cold	thick	ceiling
north	big	tame	warm	well	back
left	tall	go	down	head	rich
top	boy	black	out	front	bad
old	father	dark	mother	floor	foot
right	day	night	girl	first	soft
day	in	wrong	wild	man	unkind
light	run	new	slow	sharp	round
white	loud	young	shut	white	sunrise
come	dry	bottom	poor	larger	land
large	little	right	good	empty	alive

Tell what each does by filling the following blanks by the appropriate words:

The bell.....	The Parrot.....	The rooster.....
The boys.....	The cat.....	The dove.....
The bees	Horses.....	The crow.....
Geese.....	Peacocks	The hen.....
Birds	The robin	Larks.....
The duck says		Lambs.....

The bobolink says.....

We....., ..., ..., ..., ...

Write questions like the following on the board, have the children copy, and teach them to answer in the affirmative, using the correct verb.

In a short time all that will be necessary to do will be to write the verb on the board, as the pupils will be able to write their own questions:

Did you go out to-day?

Answer.—Yes, I went out to-day.

Did you see the girl?

Yes, I saw the girl.

Did you buy a pencil?

Did John light the lamp?

Did Mary find her doll?

Did Albert give his dog a dinner?

Did Robert leave the room?

Did Robert run to school?

Did you study your lesson?

Did Emma fan the baby?

Did Mrs. Stevens make the dress?

Did the cat drink the milk?

Did Mr. Stoner ring the bell?

Did Mary wring the clothes?

Did Lucy write her lesson?

Did Bobby fall down stairs?

Did John throw the ball?
Did Charles hang up the hat?
Did your sister cry for the orange?
Did the cat catch the rat?
Did Ida hem the ruffle?
Did Annie sweep the room?
Did James shoot the bird?
Did the dogs fight in the street?
Did the boy strike the dog?
Did the dog bite the girl?
Did Eva tear her apron?
Did the fish swim in the river?
Did the baby sleep well?
Did they choose you on their side?
Did the horse lie down?
Did you rise early this morning?
Did the weight sink the bucket?
Did the rat eat the salt?
Did the boy ride the horse?
Did the man know his son?

Let the children answer these questions on their slates.

What is your name?
How old are you?
Where do you live?
Where were you born?
How many brothers have you?
How many sisters have you?
What is your father's first name?
What is your mother's first name?
What school do you attend?
What is your teacher's name?

What do you study?
What study do you like best?
What do you do at home?
In what country do you live?
In what state do you live?
In what city or town do you live?
In what county do you live?

Require pupils to tell the story of the lesson, using their own language, as much as possible.

The teacher will copy on the blackboard the sentences in which the new words appear, leaving blank the places occupied by the new words, which are to be filled by the pupil from memory: as, "My mamma gave it to me." The new word is "mamma." The sentence should be written on the board, "My ——— gave it to me."

As pupils progress have them make lists of names of familiar objects, and spell from slates, noting the person who has the neatest list.

Teachers should have weak pupils point out certain difficult words in a given paragraph, then pronounce them as the teacher finds them, before reading.

Make up such questions as the following from the reader; specimen blanks are also given:

I can make cat out of a t c. What can you make out of o g d?

O, I can make —— out of o d g.

Now, what can you make out of a p n?

I can make —— out of a p n.

So can I. And a p n will make ——, too.

Here are w o c. What will they make?

They will make ——. Now you tell me what l i k m will make.

I can do that. They will make ——. Can you tell me what l i g r will make?

Let me see. O, yes. They will make ——.

Copy this, putting capitals and periods, in the right place.

thedogisblackhisnameisjackthecatisblacktooablackcat andablackdogliveinthehouseilikethemverymuchastheyar egoodfriendstome.

Do a little of this work for a change; when completed inspect slates, or what is better read it, naming capitals and pauses.

It is an excellent plan to construct short sentences as in above and insert words containing the apostrophe, thus: my dog's name is not snap is your dog named snap how big is your dog.

Place such lessons upon the board as this, and require them copied in correct form:

The cow g—ves m—lk; from m—lk we m—ke b—tt —r etc.

Copy on the slates, arranging into words and sentences:

I aveh a odg. eH si a dogo odg. eH psaly wthi em. eH nac karb nad nur. He illw ton iteb. oD ouy ees ym odg? eH eess you. Where si ouyr odg?

Fill blanks, using the possessive sign:

1. The —— ball is lost.
2. The —— balls are lost.
3. Was the —— dress torn?
4. Were the —— dresses torn?
5. Is the —— nest built?

6. Are the —— nests built?
7. The —— bill is sharp.
8. The —— bills are sharp.
9. The —— tail is long.
10. The —— tails are long.
11. The —— knife cost less than the——doll.

Fill as in preceding, using the word *man*, *woman*, *child*, *goose*, or *mice*.

1. The —— coat is worn out.
2. The —— coats are worn out.
3. Is the —— bonnet costly?
4. Are the —— bonnets costly?
5. Was the —— toy in the box?
6. Were the —— toys in the box?
7. Did the cat see the —— tail?
8. How many —— tails did the cat see?
9. A —— egg is larger than a hen's egg.
10. —— eggs are larger than hens' eggs.
11. —— hats do not cost as much as —— bonnets, but they cost more than —— shoes.

Write columns of words omitting the vowels, thus:

d—g,	g— —d,	s—n,	p—p—r,	—nk,
c—t,	h—rt,	st—r,	p—n,	q— —ll,
h—n,	j—g,	m— —n,	—nd,	c—p,
r—n,	— —r,	gr—ss,	g—n,	f—nc—.

Inspect slates with care.

Such a system as this applied to difficult words in the reading lesson, will secure accurate spelling when other methods fail; try it.

Suppose you have the following paragraph:

1. The grass and the meadow-flowers stood tall in the fields, and the time for making hay was near.

2. "Life is short," said a dandelion to her neighbors. "Men love to gaze on us; but they are so grasping that, because they think they can get a little more money out of us when we are dead and dried, to work goes the scythe, and down we must go."

From this you might write:

m— —d—w=fl—w—rs,	sc—th—,
m—k—ng,	gr—sp—ng,
dr— —d,	d—wn,
f— —lds,	n— —ghb—rs,
m—n—y,	d— —d.

Name the first letter of these words; when named, call then the initial letter of the name:

Tom	boy	Charles	Frank
Mary	window	Claude	fan
John	box	Walter	box
James	room	Eva	Olive

Give the initials of these words:

John Godfrey Saxe.	Abraham Lincoln.
James Abram Garfield.	George Washington.
William Harvey.	James Richardson.

Write these names correctly:

U. S. grant.	roger Williams.	John adams.
John h. Payne.	Frank taylor.	franklin Pierce.
Chicago, ill.	Robert day.	

1. Write your full name.
2. Write your initials.
3. Write your surname and put before it the initials of your Christian name.
4. Write the name of the place, state and county in which you live.

Learn to name and write the names of the days, and

names of the months, also of noted days of the year, such as:

New Year's Day.	Good Friday.	Easter.
Fourth of July.	Christmas.	Thanksgiving Day.

Take a word, like the word cat, pronounce it in the ordinary way, *cat*. Then pronounce the word, drawling it more and more, thus:

hog			cat			dog		
h‿o‿g			c‿a‿t			d‿o‿g		
[h]	[o]	[g]	[c]	[a]	[t]	[d]	[o]	[g]

Take a few words from the following list, write them upon the board, have the pupils give the plurals. Then write the plurals, having the children give the singular. Do this until they are thoroughly learned.

ant	car	face	lamb	part
apple	cat	fire	land	pen
ark	crack	fan	lap	pet
ax	carpet	frame	lamp	pig
back	cent	flame	man	play
bat	cellar	gate	mat	plum
ball	coat	game	meat	peach
barn	cob	girl	meal	pear
basket	cog	goat	moon	rat
bell	collar	hat	month	ray
bench	comma	hay	mule	rain
bed	corner	hand	name	roll
bill	day	horse	nail	rule
bird	date	hog	neck	step
bit	dinner	hen	nest	top
box	dipper	inch	oak	toy
bonnet	dish	ink	oar	tool

boy	board	jar	oat	vine
broom	doctor	jail	ore	way
bucket	dog	jug	owl	will
can	duck	lad	pan	wire
man	loaf	leaf	shelf	life
knife	mouse	half	calf	wife
goose	wolf	thief	child	foot
sheaf	louse	ox	tooth	woman
fly	baby	pony	study	lady
beauty	story	berry	city	sky
cherry	duty	cap	ring	finger

Teach the use of *this* and *that*, *these* and *those*, with the singular and plural forms.

The following can be carried out indefinitely. Change *this* in these sentences to *these* and write the sentences correctly.

1. This ball is round.
2. This box is square.
3. This paper is white.

Use *those* instead of *that* in these sentences.

That apple is red.

That horse is large.

That man is good.

That cow gives milk.

Supply *this* or *these*, *that* or *those*, in the blanks below.

1. ——— pen is bad.
2. ——— boys are cold.
3. ——— slate is mine.
4. ——— trees are full of apples.
5. ——— girls have done well.

Make use of *was* and *were* in the same manner; also, *have* and *has*.

Words of the same pronunciation, but of different spelling, may be arranged in this manner, thus: Use *to, too* or *two* in these sentences:

1. I went —— the table.
2. The pig is —— fat to run.
3. You have —— eyes, —— ears, —— hands and —— feet.

The teacher will write sentences with blanks to be filled by pupils, thus teaching the correct use and spelling of this list of difficult words. Do not go too rapidly, but be very thorough as far as you go. Be sure that the pupils see clearly the difference in meaning, and that they are able to apply the words properly. Make sentences and use all the following as per model given above.

The list appended includes most of the words known to First and Second Reader pupils.

be	bee	blew	blue	pail	pale
dear	deer	brake	break	tail	tale
eye	I	buy	by	threw	through
hear	here	coarse	course	whole	hole
hour	our	fore	four	won	one
knows	nose	flour	flower	ware	wear
knot	not	ring	wring	hair	hare
meat	meet	rode	{ rowed road	heal	heel
right	write	rose	rows	sell	cell
read	red	sail	sale	told	tolled
son	sun	sea	see	wade	weighed

to	too two	some	sum	seam	seem sew
their	there	sent	cent	so	sow
wood	would	grate	great	toe	tow
aunt	ant	knew	new	in	inn
ate	eight	lain	lane	mail	male
stair	stare	lead	led	right	write
steal	steel	made	maid	you	yew
bare	bear	pair	pare pear	might	mite

Fill these blanks; use slates; inspect:

A ——— is a young dog.
A ——— is a young sheep.
A ——— is a young goat.
A ——— is a young cat.
A ——— is a young cow.
A ——— is a young horse.
A ——— is a young lion.
A ——— is a young bear.
A ——— is a young tiger.
A ——— is a young goose.
A ——— is a young duck.
An ——— is a young eagle.
An ——— is a young owl.
A ——— is a young fox.

In order to secure close gradation, each new word on its appearance in the lesson should be placed for several days on the blackboard and left there until the pupil has become familiar with it.

Pupils should never be shown incorrect forms, nor should their attention be called to a word when written incorrectly. Simply say, "This is wrong," and erase it, having it rewritten.

"Make haste slowly." Do not attempt too much in beginning with a new word. Teach the one word *very*

thoroughly before passing to the next. Take groups of easy words used by the child and write them on the board, thus:

It is a ———. Fill the blank with words known by the pupils. Have them read the sentence holding or seeing the object. Thus, the teacher holding a book, "This is a book."

Write the following on the board, and have pupils read and copy:

It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.
It is a ———.	It is a ———.	It is a ———.

We clip an entire lesson from a Second Reader for the purpose of illustrating what may be done in the way of questioning and answering:

BRAVE LITTLE KATE.

ago	bridge	beam	stormy
across	brook	station	engine
train	reach	nearest	lantern
torn	railroad	fainting	worse (wurs)

1. I am going to tell you a true story of a brave little girl.

2. Near a large town in a new part of our country there is a place where a railroad track crosses a brook on a high bridge.

3. Not far from this bridge lives the little girl I am going to tell you about. Her name is Kate.

4. One stormy night not long ago, as little Kate stood looking out of the window, watching for her father to come home, she saw that a train was coming along the track.

5. She could not see the cars,—the night was too dark for that,—but she *could* see the bright light on the front of the engine.

6. While the little girl was looking, and just as the train had got to the brook near by, all at once the engine light seemed to fall and go out.

7. Kate looked again, but no light was to be seen. Then the little girl was afraid that something was wrong.

8. She got a lantern, and ran down towards the railroad track. When she got there she found that the bridge was gone,—that the rain had washed it away.

9. Then Kate knew that far below in the foaming water lay the engine and the train she had seen from the window.

10. Now, Kate had often watched the trains go by, so she knew just when to look for them.

11. As she stood there by the broken bridge, it came into her mind that *another* train would soon come rushing along.

12. The brave girl made up her mind to save this other train if she could. She started to run back to the nearest station, a mile away.

13. To reach this station she had to cross a long, high bridge over a broad river.

14. It is not easy to cross this bridge even in the daytime; and this was night,—a dark, stormy night.

Worse than all, just as Kate got to the bridge the wind blew out the light in her lantern.

15. But little Kate did not give up. The brave girl crept along the beams on her hands and knees, till she reached the other side of the river. Then she jumped to her feet, and ran on again till she came to the station.

16. Her clothes were torn and wet, and she could hardly speak. All she could say was, "Stop the train! stop the train!" Then she fell fainting to the ground.

17. Kate was just in time. In a minute more the cars came along, and the men at the station ran out and stopped them.

18. Was not Kate a brave girl? Think of all the people in the cars; men and women and children! and all of them saved by one little girl!

How glad they were, and how happy Kate was!

19. Children, how much good even a little girl can do if she is quick to think and brave to act!

1. What is this lesson about? 2. Is this story a true one? 3. Are there other kinds of stories? 4. Was the little girl afraid? 5. Did she live in town? 6. Did she live near the town? 7. What was near her house? 8. What was over the brook? 9. What is a bridge? 10. What crossed the bridge? 11. Why was the bridge high? 12. What is meant by a "new part of our country?" 13. What is the name of our country? 14. Do you think it was in this state? 15. Why? 16. Mark the vowels in *going*, *brave*, *near*. 17. Pronounce *little*, *tell*. 18. Give the sounds separately. 19. What letters are not sounded? 20. What do you call such letters? 21. How do you mark them?

1. What is her name? 2. Was her father living? 3. Was

he at home? 4. Where was she Saturday? 5. What was she doing? 6. What time was it? 7. Is night part of the day? 8. What kind of night was it? 9. What did she see? 10. How could she see it? 11. What is the light on the front of the engine called? 12. When did the light seem to go out? 13. Do you know why? 14. What did Kate think about it? 15. What did she do? 16. What did she find? 17. How could the rain wash the bridge away? 18. Where was the train and engine? 19. What is an engine? a train? cars? track? 20. Mark the words *bright*, *light*. 21. Pronounce them. 22. What letters are not sounded? 23. How do you mark them? 24. Give the sound of *a* in *and*, *that*, *train*.

1. Would any more trains go by? 2. Did Kate know this? 3. Why did she know it? 4. Did she know when the next train would be along? 5. What would happen to the next train? 6. Did Kate know this? 7. What did she try to do? 8. Where did she start for? 9. How far was it? 10. What must she cross? 11. Was this easy to do? 12. Why was it harder to do by night?. 13. What became of her lantern? 14. Did she give up then? 15. How did she get across? 16. What is the meaning of *rushing*, *foaming*, *nearest*, *station?* 17. Mark *rushing*, *foaming*, *nearest*. 18. Pronounce *knew*, *another*, *could*, *soon*. 19. Give their distinct sounds.

1. What did she do then? 2. How were her clothes when she reached the station? 3. Why could she hardly speak? 4. What did she say? 5. What then happened? 6. Was she in time? 7. What did the men do? 8. Was the train saved? 9. Were any persons saved? 10. How do you know? 11. Did this make Kate happy? 12. Why do you call her brave?

13. Why was she able to save them? 14. Define *fainting*, *minute*, *saved*, *brave*. 15. Mark all the sounds in *came*, *much*, *think*. 16. Pronounce *children*, *women*, *minute*, *reached*, *knew*. 17. Give the sounds in these words.

The above questions are presented to indicate what may be done in the way of questioning; answers to these questions should be written upon the slates and read in the class; thus one pupil rises, names the number of the question, reads it, then reads his answer; others criticise and read.

NUMBERS.

Book.—In the hands of the teacher only.

Object.—To learn all the combinations ("after Grube applied in the concrete,") of numbers to 10. (Many excellent teachers will secure all the combinations to 20, but we prefer to say 10, since the average teacher will do but little more than this in the allotted time.)

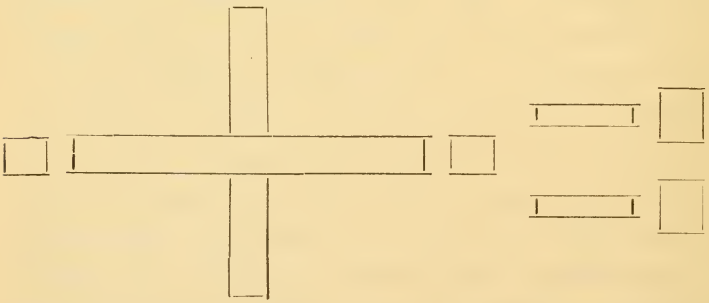
The instruction in Numbers for the first two years of the child's school life should be purely objective, and is best presented orally. Not until the pupil has mastered the combinations of the numbers to 10, inclusive, should he be permitted to use a Primary Arithmetic. It is customary throughout the land to place the book into the hands of the pupil when he first enters school; this is a mistake, and should be remedied as soon as possible. If the pupils possess the books they should be permitted to use them as the teacher may direct, but they should be subordinate to the necessary oral drill. The pupil's use of the arithmetic does not belong in this division, and can be dropped as readily as the speller.

The teacher should supply himself with numerous objects of convenient sizes, of different colors, shapes, &c. Blocks, shells, beans, buttons, pebbles, wooden toothpicks, straws cut to uniform lengths, pieces of cardboard, &c.; it will add to the interest in the work to ask them to find red, yellow and white ears of corn to be used in securing counters. It is well to ask your dry goods dealer to preserve his thread boxes for you, and when obtained use them as receptacles for the objects used.

You should cut some pasteboard strips for the purpose of making the arithmetical signs; they should be about two inches in length by one-fourth of an inch in breadth, and might appear thus:



These strips can be used to good advantage somewhat after the following manner, viz: you wish to show that $1+1=2$; require or rather show the pupil how he can *make* the *picture* of this upon his desk by using the strips and his objects, thus:



By changing the signs the child will soon become interested in *making* the pictures with the objects, and

will exhibit as much interest in *reading* them as he *learns* to make them; a class of beginners will *make* the pictures as you put the formulas upon the board, eagerly *read* them when made, and diligently *write* the *language* of same after *reading*, thus: "1 bean + 1 bean = 2 beans," "1 grain + 1 grain = 2 grains," &c., owing to the objects used. (For the sign of division place a square block upon each side of the strip of card board.)

The teacher should secure some buttons of different colors, some broom wire, (for ten cents the former may be had in sufficient quantity, and the latter may be secured by removing it from a worn out broom,) a half dozen screws, and a screw-driver. (Beg (?) the former and borrow the latter.) Thus equipped, place the screws about four inches apart, upon either side of the window casing, place ten buttons upon each wire, distributing the colors to suit your taste. (To make this outfit complete you should have *ten* wires and *one hundred* buttons.) These buttons can be used at the will of the teacher as the *abacus* is used. (See dictionary.)

When the teacher becomes thoroughly interested, he may succeed in having his directors to arm the top of a few desks (those used by the primary pupils of course) with some such device as the following: Take a gimlet and bore a couple of holes about eighteen inches apart; place ten counters upon a strong wire, and bend its ends at right angles to itself; pass these ends through thread spools, thence through the gimlet holes, and secure beneath the top of the desk by bending tightly against it; use this for actual object work by the pupil.

The teacher should call upon an insurance agent,

secure some calendars, cut them into such pieces as will secure all the digits and many duplicates; place these in pill-boxes, (to be had of the druggist) and use instead of beans, buttons, corn etc. Thus, "5+3=8." (If calendars of suitable kind cannot be had, use almanacs for same purpose.)

Teach the Roman notation no faster than the child progresses in his reader, but for a time make all the combinations with this notation. It is well to write the Roman notation upon cards or writing paper, cut into squares and distribute to class. Use these numbers as in the Arabic notation.

Wooden tooth-picks, matches (with phosphorus removed) strips of card-board etc., may be used for *making* the letters used in the Roman notation; thus: II, V, VI, X, etc.

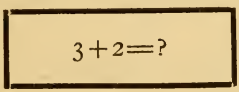
Pin-cushions and pins may be made to serve a good purpose in illustrating number work; in the absence of the former the pupil may be asked to furnish a slice from the potato, and use it instead. In fact, use anything at your command, to aid you in doing *thorough* work. Never permit the child to pass a number until he is thoroughly grounded in all its combinations together with numbers below it.

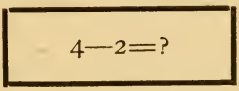
Shoe pegs are the cheapest objects for number work, since a quart of them may be had for a few pennies. The little pill-boxes furnish the best receptacles for these also.

When in town visit the printing office, ask the printer if he has any strips of card board not needed; usually you will find him glad to give you large bundles of such, upon which you may write as many of the digits

as desired; now cut these to suit your own convenience and use as suggested.

Little problems may be written upon these slips, and passed to pupils for solution. The problem might appear thus:





Have pupils recite this in the abstract and the concrete; then have them form problems from the formulas, thus: "I had three cows and bought two more, how many cows have I?" "Mary had four buttons and lost two, how many had she left"? "Since my cap cost 3 dollars, how many could I have purchased for 9 dollars"?

Since there is no danger of omitting abstract number work in the Intermediate and Advanced Divisions, it is well to give much attention to the application of numbers in the concrete.

OCTOBER.—THE NUMBERS 1 AND 2.

Since the pupil usually knows the numbers *one* and *two* on entering school, they are treated together and somewhat briefly.

1. Hold up one hand. Say one.
2. Hold up two hands. Say two.

This (1) is one and this (2) is two. (Writing the Arabic characters for 1 and 2 upon the board.) Pupils write 1; write 2; write each in script. Teacher print them. Have pupils find them on the printed page.

How many eyes have I? How many ears? Hands? Noses? Mouths? Necks? Chins? Thumbs? Cheeks?

Tongues? Books? Pencils? Feet? Right hands? Left hands?

Make the figure 1 on your slate. Make it twice.

Make the figure 2 on your slate. Make it twice.

How many 1's have you? How many 2's?

2. Count 2. Count by 2's to 6; by 2's to 8; by 2's to 10.

Count 10 by 2's. Count back to 2 from 10 by 2's.

Count back to 0 from 10 by 2's. Count to 12 by 2's.

Count 5 by 2's (how many lelt?) Count the eyes in this class by 2's. The ears. (Have pupil walk from one pupil to the other and point to the objects selected.) The thumbs. The mouths. The noses. The pupils. (Have the pupil counting to set them aside in groups of 2's.) The lines on this board by 2's. These pencils by 2's. These beans. These grains of corn. These buttons. The buttons upon ———'s dress. Upon ———'s coat.

3. Once 1 is 1. Two 1's are how many? One 2 is how many? Take two grains of corn; how many 2's? Two beans; how many 2's? Write two 1's; two 2's. One and 1 are how many? Two times 1 are how many?

Place this upon the board, and have pupils illustrate by means of the strips of card-board, the beans, or corn.

$1+1=$ $0+1=$ $2\times1=$ $2-1-1=$ $2-1+1-1=$

$1-1=$ $1\times1=$ $1\times2=$ $2-1+1=$ $1+1-1=$

Have pupils say, "1 bean and 1 bean are two beans" as they *make* the picture upon the desk. When this is well done have them translate their pictures into $1+1=2$ upon the slates, then read it; do this repeatedly until the combinations are mastered.

4. 2 is 1 more than what number? 1 is 1 less than what number? 2 is twice what number? 2 is double of what number? 1 is a half of what number? What number is the double of 1? How many 1's can you take from 2? 2 times 1 are how many? A half of 2 is what? (Illustrate.) Write this upon the board and treat as before: $2-1=$ $\frac{1}{2}$ of $2=$ $2\div 1=$ $2\div 2=$ $\frac{2}{2}=$ $2-2=$

How many are:

1 and 1?	6 and 1?	2 less 1?	7 less 1?
2 and 1?	7 and 1?	3 less 1?	8 less 1?
3 and 1?	8 and 1?	4 less 1?	9 less 1?
4 and 1?	9 and 1?	5 less 1?	10 less 1?
5 and 1?	10 and 1?	6 less 1?	11 less 1?

How many 2's in 8?
" " " " 4?
" " " " 10?
" " " " 6?
" " " " 2?
" " " " 12?
8 are how many 2's?
4 " " " " ?
6 " " " " ?
10 " " " " ?

$1+1=$
$2-1=$
$2\times 1=$
$\frac{1}{2}$ of $2=$
$2\div 2=$
$2\div 1=$
$\frac{1}{2}=$
$\frac{2}{2}=$
2 into 2=

$1+$ 1= 2= 3= 4= 5= 6= 7= 8= 9=

$2+$ 0= 1= 2= 3= 4= 5= 6= 7= 8=

Have above copied upon the slates with results when the pupil has had sufficient preparatory drill.

For slate. (To be copied from board with results.)

$\frac{1}{2}$ of 2=
$\frac{1}{2}$ of 8=
$\frac{1}{2}$ of 10 cents=
$\frac{1}{2}$ of 8 birds=
1 dime + 1 dime=
2 yards + 2 yards=
2 × 2 dimes=

$\frac{1}{2}$ of 4=
$\frac{1}{2}$ of 10=
$\frac{1}{2}$ of 6 boys=
$\frac{1}{2}$ of 12 apples=
2 in.—2 in.=

$\frac{1}{2}$ of 6=
$\frac{1}{2}$ of 12=
$\frac{1}{2}$ of 2 fish=
$\frac{1}{2}$ of 4 eggs=
2 dimes—1 dime=
1 foot + 1 foot=
1 cent × 2=

$6 \div 2 =$ $8 \div 2 =$ $2 \div 2 =$ $8 - 2 =$ $4 - 2 =$ 2 in. $\times 2 =$
$4 \div 2 =$ $10 \div 2 =$ $10 - 2 =$ $2 - 2 =$ $6 - 2 =$

Teacher continue at pleasure.

How many 2's in 4? In 6? In 8? In 10? In 12? How many *halves* in 1? In 2? In 3? In 4? In 5? How many pints in 1 quart? In 4? In 2? How many feet have two boys? Four boys? Three girls?

Continue this until you are certain that the pupil *cannot* be mistaken in any combination of the numbers *one* and *two*.

The teacher is here urged to secure two or three of the late arithmetics, Number One, and to apply every thing suggested, in his teaching of numbers. The best course in numbers will be that gleaned from several authors. If the teacher will but "go slowly" enough and secure enough practice, he will surely succeed in primary arithmetic.

When the numbers, *one* and *two*, are learned begin at once upon the number *three*. Do not wait until examination day as this is but minimum work for the average school.

NOVEMBER.—THE NUMBERS 3 AND 4.

Treat these numbers as suggested for the numbers one and two. Be very careful to know that everything is understood as you progress; better spend some time upon one single step and have it well understood than to attempt more than the pupil can master.

After the pupil thoroughly understands the processes of combining the number *three*, dwell upon such questions as the following, viz:

1. Three books are two books and —— book, or one book and —— books.

2. Three beans less two beans are —— bean; three blocks less —— block are —— blocks.

3. Three calves are one calf, one calf, and —— calf.

Treat the number four in the same manner, but quite fully.

Search your authors for suggestive blackboard helps; keep up the constant use of the slate in the preparation of the lesson. This can only be done by having some work outlined upon the board. *Always inspect the slates; unless you do this the pupil will grow careless and produce slovenly work. Go slowly.*

"Haste not, rest not."

SEAT WORK.

How many are:		*Read and complete:*	
1 and 3?	4 less 3?	1 + 3=	4—3=
2 and 3?	5 less 3?	2 + 3=	5—3=
3 and 3?	6 less 3?	3 + 3=	6—3=
4 and 3?	7 less 3?	4 + 3=	7—3=
5 and 3?	8 less 3?	5 + 3=	8—3=
6 and 3?	9 less 3?	6 + 3=	9—3=
7 and 3?	10 less 3?	7 + 3=	10—3=
8 and 3?	11 less 3?	8 + 3=	11—3=
9 and 3?	12 less 3?	9 + 3=	12—3=
10 and 3?	13 less 3?	10 + 3=	13—3=

How many are:			
1 and 2?	2 and 1?	1 from 3?	2 from 3?
1 and 3?	3 and 1?	1 from 4?	3 from 4?
2 and 2?	———	2 from 4?	———
1 and 4?	4 and 1?	1 from 5?	4 from 5?

2 and 3?	3 and 2?	2 from 5?	3 from 5?
1 and 5?	5 and 1?	1 from 6?	5 from 6?
2 and 4?	4 and 2?	2 from 6?	4 from 6?
3 and 3?	———	3 from 6?	———
1 and 6?	6 and 1?	1 from 7?	6 from 7?
2 and 5?	5 and 2?	2 from 7?	5 from 7?
3 and 4?	4 and 3?	3 from 7?	4 from 7?

How many are:		*Read and complete:*	
1 and 4?	5 less 4?	1+4=	5—4=
2 and 4?	6 less 4?	2+4=	6—4=
3 and 4?	7 less 4?	3+4=	7—4=
4 and 4?	8 less 4?	4+4=	8—4=
5 and 4?	9 less 4?	5+4=	9—4=
6 and 4?	10 less 4?	6+4=	10—4=
7 and 4?	11 less 4?	7+4=	11—4=
8 and 4?	12 less 4?	8+4=	12—4=
9 and 4?	13 less 4?	9+4=	13—4=
10 and 4?	14 less 4?	10+4=	14—4=

How many are:

1 and 2?	3 less 2?	1 time 1?	1 in 1?
2 and 2?	4 less 2?	2 times 1?	1 in 2?
3 and 2?	5 less 2?	3 times 1?	1 in 3?
4 and 2?	6 less 2?	4 times 1?	1 in 4?
5 and 2?	7 less 2?	5 times 1?	1 in 5?
6 and 2?	8 less 2?	6 times 1?	1 in 6?
7 and 2?	9 less 2?	7 times 1?	1 in 7?
8 and 2?	10 less 2?	8 times 1?	1 in 8?
9 and 2?	11 less 2?	9 times 1?	1 in 9?
10 and 2?	12 less 2?	10 times 1?	1 in 10?
1 time 2?	2 times 2?	2 in 2?	2 in 4?
3 times 2?	4 times 2?	3 in 6?	2 in 8?

5 times 2?	6 times 2?	2 in 10?	2 in 12?
7 times 2?	8 times 2?	2 in 14?	2 in 16?
9 times 2?	10 times 2?	2 in 18?	2 in 20?

Copy and fill :

$1 \times 2 = 2$	$2 \div 2 =$	$3 \times 2 =$
$2 \times 2 =$	$4 \div 2 =$	$6 \div 2 =$
$3 \times 2 =$	$6 \div 2 =$	$5 \times 2 =$
$4 \times 2 =$	$8 \div 2 =$	$10 \div 2 =$
$5 \times 2 =$	$10 \div 2 =$	$7 \times 2 =$
$6 \times 2 =$	$12 \div 2 =$	$14 \div 2 =$
$7 \times 2 =$	$14 \div 2 =$	$8 \times 2 =$
$8 \times 2 =$	$16 \div 2 =$	$16 \div 2 =$
$9 \times 2 =$	$18 \div 2 =$	$9 \times 2 =$
$10 \times 2 =$	$20 \div 2 =$	$18 \div 2 =$

1 time 3?	3 in 3?	$3 \times 1 =$	$3 \div 3 =$
2 times 3?	3 in 6?	$3 \times 2 =$	$6 \div 3 =$
3 times 3?	3 in 9?	$3 \times 3 =$	$9 \div 3 =$
4 times 3?	3 in 12?	$3 \times 4 =$	$12 \div 3 =$
$15 \div 3 =$	$4 \div 4 = 1$	$3 \times 5 =$	$15 \div 3 =$
$9 \times 3 =$	$8 \div 4 =$	$3 \times 6 =$	$18 \div 3 =$
$7 \times 3 =$	$12 \div 4 =$	$2 \times 3 =$	$9 \div 3 =$
$4 \times 1 =$	$16 \div 4 =$	$6 \div 3 =$	$12 \div 3 =$
$4 \times 2 =$		$4 \times 3 =$	$18 \div 3 =$
$4 \times 3 =$		$12 \div 3 =$	
$4 \times 4 =$		$18 \div 3 =$	$6 \times 3 =$

When the number four is learned begin the "Yankee Multiplication Table" thus:

1	2	3	4
2	4	6	8
3	6	9	12
4	8	12	16

The pupil should be shown how to construct this table and be required to recite it in the concrete, thus: "2×1 ox $= 2$ oxen;" "2×2 sheep $= 4$ sheep;" 2×3 birds $= 6$ birds;" 2×4 cows $= 8$ cows."

At first require pupils to use the names of objects within the room; when these are exhausted require the names of animals having four feet, later those having two feet, those that swim, those that crawl, &c. Pupils will like this. Encourage them to extend the table to five provided they can construct it with accuracy. Do not stop when this is completed, but pass to the numbers five and six.

DECEMBER.—THE NUMBERS FIVE AND SIX.

Treat as suggested for preceding numbers; at this stage of the work enlarge upon the number and the variety of practical problems; lead pupils to construct problems for each other, permitting no one to propose one which he cannot solve.

Suppose you have the following upon the board:

How many are:		*Read and complete:*	
1 and 5?	6 less 5?	1 + 5 =	6—5 =
2 and 5?	7 less 5?	2 + 5 =	7—5 =
3 and 5?	8 less 5?	3 + 5 =	8—5 =
4 and 5?	9 less 5?	4 + 5 =	9—5 =
5 and 5?	10 less 5?	5 + 5 =	10—5 =
6 and 5?	11 less 5?	6 + 5 =	11—5 =
7 and 5?	12 less 5?	7 + 5 =	12—5 =
8 and 5?	13 less 5?	8 + 5 =	13—5 =
9 and 5?	14 less 5?	9 + 5 =	14—5 =
10 and 5?	15 less 5?	10 + 5 =	15—5 =

Now show pupils how they may construct original examples by using the numbers given, thus: "If John has a marble and James has five, how many would William have provided he buys John's and James's marbles?" Require some other pupil to give result.

then give another the privilege of constructing a problem for solution, using the "2 and 5."

Read and complete:

1.	$12 = 4 \times ?$	$12 = 3 \times ?$	$12 \div 4 = ?$	$12 \div 3 = ?$
2.	$14 = 7 \times ?$	$14 = 2 \times ?$	$14 \div 7 = ?$	$14 \div 2 = ?$
3.	$8 = 2 \times ?$	$8 = 4 \times ?$	$8 \div 4 = ?$	$8 \div 2 = ?$
4.	$6 = 3 \times ?$	$6 = 2 \times ?$	$6 \div 2 = ?$	$6 \div 3 = ?$
5.	$10 = 5 \times ?$	$10 = 2 \times ?$	$10 \div 2 = ?$	$10 \div 5 = ?$
6.	$12 = 2 \times ?$	$12 = 6 \times ?$	$12 \div 6 = ?$	$12 \div 2 = ?$

Extend this at pleasure. Do not omit the constant recurrence of fractional parts, thus:

½ of 2 =	½ of 8 =	½ of 10 cents =
½ of 12 in. =	½ of a quart =	½ of 4 =
½ of 10 =	½ of 14 eggs =	½ of 16 birds =
½ of 6 yards =	½ of 6 =	½ of 12 =
½ of $12 =	½ of 10 dimes =	½ of 8 sheep =
⅓ of 6 =	⅓ of 12 =	⅓ of 9 =
⅓ of 9 men =	⅓ of 12 boys =	⅓ of $15 =
⅓ of 18 dogs =	⅓ of = 4	⅓ of = 3
⅓ of = 5	¼ of 4 =	¼ of 8 =
¼ of 12 =	$\frac{12}{4}$ =	$^{8}/_{4}$ =
Two 4's =	$^{1}/_{5}$ of 5 =	$^{1}/_{5}$ of 10 =
$\frac{10}{2}$ =	$\frac{10}{5}$ =	Two 5's =

Attend to the Arabic and Roman notations; carry this as far as the lesson last read in the reader Do not spend time upon the notation and numeration beyond the limits named, as the child will be able to write and read numbers as rapidly as they are needed.

Whenever the limit is completed pass to the work of the next month. Do not hesitate to push forward as rapidly as you can to do thorough work.

JANUARY.—THE NUMBER SEVEN.

Treat as recommended for other numbers. Be very careful and have perfect work. Increase the number and variety of original and selected problems. Build up the "Yankee Multiplication Table" by adding a square or two daily.

Name the seven letters used in Roman notation and state the value of each.

Write long columns of single numbers and cause pupils to write corresponding columns of numbers, increased by a single number; write columns of numbers diminished by a common number; multiplied by a common factor; divided by a common divisor.

Write long columns and require the number 10 added, or subtracted, and second column written rapidly.

Search your primary arithmetics for other methods and constantly devise slate work that shall be a review of the preceding numbers.

Start with a small number and *double* it, double the product and repeat as far as the pupil can do so readily. Reverse this process and *halve* it.

Have pupils write a long list of Arabic numbers and duplicate in the Roman writing.

Practice writing sums of Federal money. Practice reading same.

Have pupils use the foot-rule in measuring lengths, breadths, and thicknesses. (These rules are usually to be had of merchants for the asking. They may be made from pieces of lath, or from paste-board boxes.

Have pupils learn the table for "Time Measure."

Pass immediately to the number eight as soon as seven is thoroughly learned.

FEBRUARY.—THE NUMBER EIGHT.

Write, complete, learn, and recite:

0 *and* 8 *are* —
8 *and* 0 *are* —
1 *and* 7 *are* —
7 *and* 1 *are* —
2 *and* 6 *are* —
6 *and* 2 *are* —
3 *and* 5 *are* —
5 *and* 3 *are* —
4 *and* 4 *are* —
1 8 *is* —
8 1*'s are* —
2 4*'s are* —
4 2*'s are* —
1 *half of* 8 *is* —

8 *less* 0 *is* —
8 *less* 8 *is* —
8 *less* 1 *is* —
8 *less* 7 *is* —
8 *less* 2 *is* —
8 *less* 6 *is* —
8 *less* 3 *is* —
8 *less* 5 *is* —
8 *less* 4 *is* —
1 *in* 8 — *times*
8 *in* 8 ——
2 *in* 8 — *times*
4 *in* 8 — *times*
1 *fourth of* 8 *is* —

1 *eighth of* 8 *is* —

WRITE AND ADD

1	2	3	4	5	6	7	8	9
7	0	5	4	2	1	7	4	3
1	8	2	3	6	6	0	4	5
—	—	—	—	—	—	—	—	—

WRITE AND MULTIPLY

1	2	3	4	5	6	7	8
7	2	0	1	4	1	0	8
1	4	8	7	2	8	7	1
—	—	—	—	—	—	—	—

WRITE AND SUBSTRACT

1	2	3	4	5	6	7	8	9
8	8	7	7	8	8	7	8	7
1	5	4	0	3	7	2	8	5
—	—	—	—	—	—	—	—	—

WRITE AND DIVIDE

1	2	3	4	5	6	7
1)7	2)8	7)7	4)8	2)7	3)8	3)7

WRITE AND ADD

1	2	3	4	5	6	7	8	9	10
1	1	3	1	2	1	1	3	3	1
1	2	0	1	2	2	3	2	2	3
6	4	4	5	4	5	3	2	3	4

WRITE AND SUBTRACT

1	2	3	4	5	6	7	8	9
8	7	7	8	8	7	8	0	7
4	1	3	0	7	7	6	7	6

WRITE AND DIVIDE

1	2	3	4	5	6	7
8)8	4)7	5)8	7)8	6)7	6)8	5)7

Build up the multiplication table as before to the 8's.

0 + 8 = 8	3 + 8 = 11	6 + 8 = 14
1 + 8 = 9	4 + 8 = 12	7 + 8 = 15
2 + 8 = 10	5 + 8 = 13	8 + 8 = 16
8 — 8 = 0	11 — 8 = 3	14 — 8 = 6
9 — 8 = 1	12 — 8 = 4	15 — 8 = 7
10 — 8 = 2	13 — 8 = 5	16 — 8 = 8
8 × 0 = 0	8 × 3 = 24	8 × 6 = 48
8 × 1 = 8	8 × 4 = 32	8 × 7 = 56
8 × 2 = 16	8 × 5 = 40	8 × 8 = 64
0 ÷ 8 = 0	24 ÷ 8 = 3	48 ÷ 8 = 6
8 ÷ 8 = 1	32 ÷ 8 = 4	56 ÷ 8 = 7
16 ÷ 8 = 2	40 ÷ 8 = 5	64 ÷ 8 = 8
⅛ of 0 = 0	⅛ of 24 = 3	⅛ of 48 = 6

⅛ of 8 = 1 ⅛ of 32 = 4 ⅛ of 56 = 7
⅛ of 16 = 2 ⅛ of 40 = 5 ⅛ of 64 = 8

How many are

8 times 3 eggs? 6 times 8 hours?
5 times 8 nuts? 8 times 8 cents?
8 times 4 pins 7 times 8 quarts?

How many are

⅛ of 24 miles? ⅛ of 48 men?
⅛ of 16 dollars? ⅛ of 56 bushels?
⅛ of 32 ounces? ⅛ of 40 cents?

ADD AT SIGHT

8	8	5	8	4	7	3	8	8	6	8
6	7	8	8	8	8	8	5	4	8	4

Write the proper numbers in place of (?):

16 + 8 = ? 15 + 8 = ? 32 + 8 = ? 22 + 8 = ?
16 — 8 = ? 15 — 8 = ? 32 — 8 = ? 22 — 8 = ?
7 × 8 = ? 5 × 8 = ? 8 × 8 = ? 6 × 8 = ?
24 ÷ 8 = ? 40 ÷ 8 = ? 48 ÷ 8 = ? 56 ÷ 8 = ?

ADDITION.

8	7	5	6	4	4	8	8	8	7
5	1	8	8	0	6	3	6	8	7
3	4	6	8	8	7	2	7	8	8

SUBSTRACTION.

9	11	12	8	16	14	24	15	12	10
8	6	8	2	8	7	8	7	6	2

MULTIPLICATION.

8	7	6	5	4	8	7	7	8	8
3	5	4	8	7	6	6	7	7	8

DIVISION.

6)18 8)56 8)40 7)49 6)48

COMPARING 1, 2, 3, 4, 5, 6, 7 WITH 8.

1. Compare 8 and 7.

8 is 1 more than 7; 7 is 1 less than 8.

2. Compare 8 and 6. 8 and 5. 8 and 4. 8 and 3. 8 and 2. 8 and 1.

3. 8 is how many 1's? 2's? 3's? 4's, 5's? 6's 7's?

4. 8 is how many times 1? 2? 3? 4? 5? 6? 7?

5. 1 is what part of 8? 2 is what part? 4 is what part?

6. 8 is equal to what two equal numbers? To what four equal numbers? To what eight equal numbers?

7. 8 is equal to what two even numbers? To what two other even numbers? To what four even numbers?

8. 8 is equal to what two odd numbers? To what two other odd numbers?

9. 8 is equal to what two unequal numbers?

10. 8 is equal to what three unequal numbers?

How many keys are

1. 7 keys and 1 key?
2. 8 times 1 key?
3. 8 keys less 7 keys, less 1 key?
4. 8 keys less 8 times 1 key?

5. How many times can I take 1 key from 8 keys?

6. Then, how many times is 1 key contained in 8 keys?

How many locks are

1. 2 locks, and 2 locks, and 2 locks, and 2 locks?
2. 4 times 2 locks?
3. 8 locks less 2 locks, less 2 locks, less 2 locks, less 2 locks?
4. 8 locks less 4 times 2 locks?

5. How many times can I take 2 locks from 8 locks?
6. How many times are 2 locks contained in 8 locks?
7. 8 locks are how many times 2 locks?
8. 8 locks are 4 times how many locks?

How many bolts are

1. 3 bolts, and 3 bolts, and 2 bolts?
2. 2 times 3 bolts, and 2 bolts?
3. 8 bolts less 3 bolts, less 3 bolts?
4. 8 bolts less 2 times 3 bolts?

5. How many times can I take 3 bolts from 8 bolts?
6. How many times are 3 bolts contained in 8 bolts?

How many hinges are

1. 4 hinges and 4 hinges?
2. 2 times 4 hinges?
3. 8 hinges less 4 hinges, less 4 hinges?
4. 8 hinges less 2 times 4 hinges?

5. How many times can I take 4 hinges from 8 hinges?
6. How many times are 4 hinges contained in 8 hinges?
7. 8 hinges are how many times 4 hinges?
8. 8 hinges are 4 times how many hinges?

1. How many tacks are 5 tacks and 3 tacks?
2. How many tacks are 8 tacks less 5 tacks?
3. How many times can I take 5 tacks from 8 tacks?
4. Then, how many times are 5 tacks contained in 8 tacks?

1. How many nails are 6 nails and 2 nails?
2. How many nails are 8 nails less 6 nails?
3. How many times can I take 6 nails from 8 nails?
4. Then, how many times are 6 nails contained in 8 nails?

1. How many boards are 7 boards and 1 board?

2. How many boards are 8 boards less 7 boards?

3. How many times can I take 7 boards from 8 boards?

4. Then, how many times are 7 boards contained in 8 boards?

1. How many times can I take 8 bricks from 8 bricks? Then, how many times are 8 bricks contained in 8 bricks?

How many bricks are	What part of 8 bricks
2. 1 half of 8 bricks?	5. Are 4 bricks?
3. 1 fourth of 8 bricks?	6. Are 2 bricks?
4. 1 eighth of 8 bricks?	7. Is 1 brick?

8. 1 brick is 1 eighth of how many bricks?

9. 2 bricks are 1 fourth of how many bricks?

10. 4 bricks are 1 half of how many bricks?

Copy and fill:

$8\times 1=$	$8\div 8=$	$6\times 8=$	$7\times \quad =56$
$8\times 2=$	$16\div 8=$	$48\div 8=$	$8\times \quad =72$
$8\times 3=$	$24\div 8=$	$8\times 8=$	$7\times \quad =42$
$8\times 4=$	$32\div 8=$	$64\div 8=$	$6\times \quad =54$
$8\times 5=$	$40\div 8=$	$5\times 8=$	$7\times \quad =63$
$8\times 6=$	$48\div 8=$	$40\div 8=$	$8\times \quad =56$
$8\times 7=$	$56\div 8=$	$9\times 8=$	$8\times \quad =80$
$8\times 8=$	$64\div 8=$	$72\div 8=$	$5\times \quad =45$
$6\times 9=$	$72\div 8=$	$7\times 8=$	$6\times \quad =48$
$8\times 10=$	$80\div 8=$	$56\div 8=$	$10+\quad =70$

How many books are:

Two 8 books?	2 times 8 books?	Two 8's?
Four 8 books?	4 times 8 books?	Four 8's?
Three 8 books?	3 times 8 books?	Three 8's?
Six 8 books?	6 times 8 books?	Six 8's?
Five 8 books?	5 times 8 books?	Five 8's?

Seven 8 books?	7 times 8 books?	Seven 8's?
Eight 8 books?	8 times 8 books?	Eight 8's?
Nine 8 books?	9 times 8 books?	Nine 8's?
Ten 8 books?	10 times 8 books?	Ten 8's?

How many are:	*How many:*
2 times 8 pecks?	8 quarts in 24 quarts?
3 times 8 quarts?	8 pints in 40 pints?
2 times 8 yards?	8 bushels in 16 bushels?
4 times 8 bushels?	8 grains in 32 grains?
6 times 8 pounds?	8 pounds in 48 pounds?
8 times 8 boxes?	8 ounces in 64 ounces?
10 times 8 pounds?	8 boxes in 80 boxes?
7 times 8 dimes?	8 cents in 56 cents?
9 times 8 dimes?	8 pennies in 72 pennies?

Give an endless variety of problems of a practical nature.

Place some such form as this upon the board:

8 ×	1=
	2=
	3=
	4=
	5=
	6=
	7=
	8=
	9=
	10=

Show the pupils how they may fill this out by writing the name of some animal to the right of each number in the column, and completing the form, thus: "1 cat=8 cats," "2 dogs=16 dogs," &c. When this is completed the form will present the following appearance:

8 ×	1 rat=8 rats.
	2 cats=16 cats.
	3 dogs=24 dogs.
	4 birds=32 birds.
	5 sheep=40 sheep.
	6 mice=48 mice.
	7 lambs=56 lambs.
	8 snakes=64 snakes
	9 toads=72 toads.
	10 owls=80 owls.

Change the order of the digits so as to put it in the shape of a review. Have pupils stand and recite one part each in turn, naming the parts of a wagon. When this is recited have each to write out same

form, noting the pupil who has correctly spelled all the words used.

By a little careful thought the teacher will originate many new forms and helpful methods. Read your authors for this and look through old files of papers for suggestions.

MARCH.—THE NUMBER NINE.

Treat the number nine as suggested for each of the preceding numbers. You cannot make this treatment too full, or too complete. If the pupil thoroughly understands all possible combinations of the nine numbers there can be but little difficulty in securing intelligent work in the Intermediate Divisions. It is true that the *thorough* teacher can *do* more work than is here outlined, the careless one will *pass over* more than twice the amount of work, and the average country school teacher will be kept busy in doing the *minimum* as here outlined; these facts should convince us of the value of outline that shall show but *minimum* work.

The teacher is urged to do as much *more* than the minimum as he can to secure thorough work.

The number *ten* is placed in this connection to be left at the discretion of the teacher. He is expected to introduce the number ten whenever he is thoroughly prepared for it.

Pass to the Intermediate work whenever the pupils are prepared to do so.

The pupil should copy the following diagram upon the slate, and fill the spaces with the appropriate products:

1	2	3	4	5	6	7	8	9	10
2	2's	2's	2's	2's	2's	2's	2's	2's	2's

A similar form should be used for each number, as the class advances.

ABOUT SIGNS.

A very common error throughout the country is the *use* of the signs in the order printed, thus, $6+8\times3-2\times3$, if treated in the order written gives 120 as the result while the true result is 24.

It should be remembered that the signs $\times$ and $\div$ take precedence over + and — immediately preceding them. In other words the sign + or — include all that lies between them and the next + or — sign.

But in $6\times4\div3\times4$, authors are not agreed as to whether the result is 32, or 2.

Great care should be exercised to avoid false teaching with referenee to the signs.

From the first lesson begin to build up all the combined additions that will produce the number in use; keep this before the class daily until it is able to reproduce it without aid.

When completed it will present the following appearance:

1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9									
2	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9								
3		3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9							
4			4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9						
5				5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9					
6					6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9				
7						7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9			
8							8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9		
9								9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	
10	11	12	13	14	15	16	17	18									

When completed, the "Yankee Multiplication Table" will present the following appearance:

	1's	2's	3's	4's	5's	6's	7's	8's	9's	10's
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

This may be extended by continuing to 12 in the same manner.

Write a column of numbers, each less than ten, similar to these:

1. 6
2. 8
3. 4
4. 3
5. 2
6. 1
7. 5
8. 9

Have pupils look at these numbers and give results as quickly as possible by turns, or as called upon.

First, give sum by adding any common addend, as 5; thus: 11, 13, 9, 8, 7, etc.

Second, give difference by using some common minuend larger than any one of the subtrahends.

9. 7
10. 6

Third, give product by using any common multiplier.

Fourth, give quotient of some number divided by each in turn, rapidly. Practice this frequently by changing the numbers. Finally, require pupils to prepare scheme for same, completely filled out.

PENMANSHIP.

Do not teach principles in this division, neither have a separate class in Penmanship, but be cautious in all your writing for the children to present the best possible specimens of your handwriting, and to insist upon neat letter forms. The idea of care, and of neatness, should run through all the work in copying, or in sentence building.

Have this division to write at the same hour with the whole school, as a general exercise, and have its members give attention to all explanations; but do not ask it to memorize rules and analysis.

Do not introduce the pen in this division; have pupils use slate pencil, lead pencil and crayon.

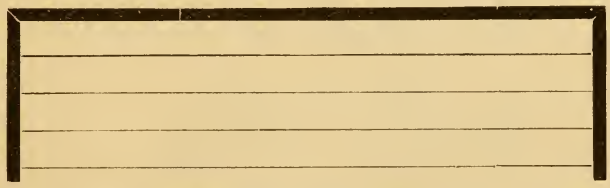
The teacher will select one or two lines for practice each month; these should be neatly written upon the board, or better, upon slips of paper, and the pupils required to practice upon them.

From this time forward, through all grades of the school, almost every reading lesson should be accompanied by appropriate written work; and in connection with Grammar, Geography and History, much writing should be done. In all of this work and in the written examinations, it is of the first importance that no carelessness be tolerated. The habit of writing a confused,

jumbled scrawl is easily formed and cannot be changed without the most persistent effort. Pupils should be compelled to re-write their work when it is not satisfactory. *Never allow any of it to pass unnoticed. Look at everything they do.* When members of the Primary Division write exercises in spelling, language, etc., on paper, have the paper ruled like the slates. While making a specialty of the forms of letters, as should be done in this grade, the writing must be large.

Early in the term take a specimen of penmanship from every pupil able to write. At intervals afterwards, take other specimens, and keep the first and the last one by each pupil together. Unless you do this there will be no realization of the progress made. You might use for the purpose slips of examination paper about seven lines wide, and making a hole through one end of a collection of them, tie them together. They could then be turned like the leaves of a book. Have date, name and age of pupil, name of teacher, and name of district written on each specimen. Let the line be repeated one or two times, according to space.

Slates should be carefully ruled at the top so as to present this appearance:



An ordinary Spencerian pen, with center broken out, offers ruling points of the proper width.

For forms of the letters see the outline of study for

Penmanship in the Intermediate Division. A copy of these forms should be placed upon the upper margin of the board and kept standing there during the whole term, or until the whole board is needed.

Specimen work only should be required of this division each month. The teacher should write the stanza on the board, and require much practice during the week.

LINES FOR OCTOBER.

Hark! my mother's voice I hear;
Sweet that voice is to my ear.

LINES FOR NOVEMBER.

Love me, mother? Yes, I know
None can love so well as thou.

LINES FOR DECEMBER.

What return then, can I make?
This fond heart, dear mother, take.

LINES FOR JANUARY.

Do your best, your very best,
And do it every day.

LINES FOR FEBRUARY.

Do your best with right good will,
It is a golden rule.

LINES FOR MARCH.

Kind hearts are the gardens,
Kind thoughts are the roots.

LINES FOR APRIL.

If I was a man,
I'd *be* a man.

LINES FOR MAY.

This is my writing.

Name

The teacher should take specimen work on the above at such time as he may deem best, after the pupils have had sufficient practice. If the regular examination paper is used, he should see to it that the blanks are correctly filled.

INTERMEDIATE DIVISION.

COURSE, AND OUTLINE OF STUDY.

APPROXIMATE TIME—THREE YEARS.

STUDIES OF THIRD AND FOURTH READER PUPILS.

- Reading.
- Spelling.
- Penmanship.
- Language.
- Geography.
- U. S. History.
- Arithmetic.

CLASSIFICATION.

READING.—Permit but two reading classes in this division. In many cases a little ingenuity on the part of the teacher will enable him to combine them into one. In some cases he will find but one or two pupils in the Third Reader, and these possibly as good readers as those in the Fourth Reader; by a careful attempt he may succeed in having these enter the Fourth Reader class for a time; and finally, the pupils will gladly unite and read alternately from the two readers. In many instances the Fourth Reader pupils can be put into the Third in the same manner; or good readers in the Fourth can be promoted to the Fifth Reader, provided this book is used in the course. The same plan of classification will apply in many instances, to the Primary Division. It is absolutely as necessary to use good judgment in the classification and gradation of

the school, as in any business engagement. It requires tact, and a clear comprehension of the course of study, together with a definite object in view, at all times.

SPELLING.—The spelling book should not be used until the pupil reaches the Fourth Reader. Teachers will find opposition to this plan, and will find it necessary in many cases to use the speller more or less, until pupils pass from the Primary Division; by so doing they may soon be able to discard it in all classes below the Fourth Reader. Two classes are sufficient for the course, provided *every* word has been correctly spelled as the pupil progressed in his reader.

It should be remembered that no pupil is to be retarded in his progress by pupils who cannot do the full amount of work, but that all are to be encouraged to do good and thorough work; hence, whenever a pupil is able to carry some of the studies of the next grade, he should be permitted to take them, no matter whether he is promoted in all of them or not; this being the plan, the teacher should permit pupils who are able to do so, to enter the B spelling class, from the Third Reader; the poorest spellers in the Fourth Reader, and the best in the Third should compose the B class, and the best spellers from the Fourth, and the members of the Fifth Reader grade should comprise the A class. In other words, place all pupils who are qualified to do the work, in the advanced class, as outlined in the Intermediate Division.

PENMANSHIP.—The entire school should form one class in this branch, and the exercise should have its place and time in the program, held as sacred as any other branch. See Course of Study for methods and helps in this branch.

LANGUAGE.—Technical grammar should not be attempted in this division, but thorough work should be done in language. Constant and vigilant attention should be paid to the correct use of language, in all the branches, and at all times, both in and out of school. There should be two classes in language; the class in Oral Language and the class in the Text Book. Oral work should extend through the Third Reader grade, and the Text Book through the Fourth Reader. In the application of this plan of classification it may be necessary to do oral work for a year, even in the Fourth Reader grade, owing to the unbalanced education of its members.

In the poorest graded schools, it will take about two years to grade to the requirements of this course of study.

GEOGRAPHY.—There should be two classes in this branch in the Intermediate Division. There can be no necessity for more than this number. The class of beginners should not have the book, but should comprise the class in Oral Geography as outlined in the course.

The other class should do the work outlined for this grade. See detailed outline for methods and helps in the teaching of Geography.

U. S. HISTORY.—But one class is needed in this branch in the Intermediate Division. It will be found that but few schools are now using a Primary History of the United States All teachers in the rural schools must consent that the members of the Fourth Reader classes are the most troublesome in the school, so far as discipline is concerned. This is principally caused by

the absence of sufficient required work. Again, as history is ordinarily taught, pupils become disgusted with it in the Fifth Reader grade. It is a serious mistake to place the heavy text book of History into the hands of the pupil, without first giving him an introduction to the most interesting features of our country's history. Teachers who will get the consent of their school boards to introduce a good, child's text on U. S. History, will find themselves more than repaid for their trouble, by the interest aroused, and the seat work afforded by it. At the close of the year they will find their pupils both willing, and eager to take up the usual text book. Of course, none except members of the Fourth Reader class, or those in the Fifth Reader not pursuing this study, should be admitted.

ARITHMETIC.—Strictly speaking there should be but three classes in the Practical Arithmetic. If the work is well done in the first three reader grades, the pupil will have but little trouble to carry the work as outlined in the course. Pupils should not own the text until they pass at least one year's work in the Third Reader. This will provide the way for two classes in Practical Arithmetic, in the Intermediate Division. One reason why pupils do not master the principles of Arithmetic, is because they are pushed forward too rapidly, and do not master what they pass over. Nothing but patient, and thorough work, slowly, and cautiously done, with constant daily reviews, will ever accomplish successful results in Arithmetic.

READING.

Books—Third and Fourth Readers.

Object—To increase the vocabulary, to acquire in-

formation, to develop thought, and to express it effectively, both in oral and written forms.

Materials—Dictionary, blackboard, slates, paper, pen, pencil, and sponge.

Preparation—(1) The pronunciation of the word as a whole.

(2) Spelling by sound.

(3) Spelling by letter.

(4) Name of diacritical marks. Daily review and careful drill on the above points.

Apply all suggestions of a practical nature from the Primary Division to the Reading classes in this division.

The members of the Third Reader class should not be required to use the dictionary much, but the members of the Fourth Reader should be required to do so every day.

Preparation for the use of the dictionary should begin early in the Primary Division, and be continued until the pupil can use it. In the Third Reader it is well to arrange words of a given lesson with reference to the *two* or *three* first letters, as in the Primary Division.

Arrange words in columns with reference to long or short sounds. Do not attempt too much of this at a time. A very little bit daily for five months will accomplish a great deal. Select the words from reader or lists given, thus:

LONG SOUNDS, ETC.

ē	e͝	ā	â	ä	ô	ō	o͝
bee	her	aim	air	mark	or	oats	ooze
beat	sir	pain	fair	hark	fork	vote	who
sea	hurry	same	there	lark	gorge	those	whose
thee	earth	ache	wear	dark	lord	sown	whom
Lee	mirth	make	pear	spark	born	own	choose

SHORT SOUNDS.

ĭ	ŭ	ĕ	ă	á	ŏ	o
written	uncle	bell	act	ask	dot	book
picture	under	bend	back	task	not	look
this	upon	sent	bran	dance	forgot	took
wish	upward	then	brand	chance	dog	good
chill	ugly	when	than	mask	hog	foot

LONG VOWELS, DIPTHONGS, ETC.

ī	oi	ou	u	y	w	h	wh
iron	joint	pout	cute	yet	way	hay	when
idle	point	rout	mute	yell	well	he	which
mind	boil	spout	new	yes	walk	him	white
thine	soil	thou	few	yelk	war	his	what
size	spoil	owl	dew	you	was	have	where

Arrange also with reference to certain letters or groups of letters, either silent or sounded, thus:

knock	knot	knack	right	sight	light
knob	know	knife	might	tight	night

In the following lesson a very good model is obtained by which pupils can be led to select all of the easier derivatives. The meaning of the primitive may be taught and the force of the prefix or suffix clearly shown. Afterwards the meaning may be given.

ONLY A BABY.

Only a baby small,
Dropped from the skies!
Only a laughing face—
Two sunny eyes!

Only two cherry lips,
One chubby nose!
Only two little hands,
Ten little toes.

Only a golden head,
Curly and soft!
Only a tongue that wags,
Loudly and oft.

Only a little brain,
Empty of thought!
Only a little heart,
Troubled with naught.

Only a tender flower,
Sent us to rear!
Only a life to love,
While we are here.

Only a baby small,
Never at rest!
Small, but how dear to us,
God knoweth best!

—*Addie Layton.*

Dropped = drop + ed. Why 2 p's in dropped?
Laughing = laugh + ing.
Sunny = sun + y. Why two n's in sunny?
Golden = gold + en.
Curly = curl + y. Why but one l?
Loudly = loud + ly.
Troubled = trouble + ed. Why but one e?
Knoweth = know + eth.

This will illustrate the use of synonyms; thus:

small	little	sunny	bright	wags	moves
laughing	smiling	little	small	naught	nothing
rest	quiet	flower	blossom	rear	raise

What has been said about assigning short lessons can be illustrated by the one given above. These or similar questions should be given that the pupils may be thoroughly tested as to their comprehension of its meaning and their ability to express their thoughts:

Is a baby as large as you are? Which is larger, a colt or a horse? a calf or a cow? a pig or a hog? Where is the sky? What is a laughing face? Sunny eyes? How many eyes? ears? noses? lips? hands? fingers? feet? toes? tongues? heads? What is a golden head? Does the baby talk? what sound does it make? Will it learn to talk? What do you use when you talk? What words have long *o*? long *a*? What words begin with *ch*? with *t*? with *a*? Write the lesson, omitting all words that tell some number. What did you omit? Write these numbers in three ways. Put other words in the place of *small*, *laughing*, *sunny*, *cherry*, *ways*, *oft*.

The above is sufficient for one lesson. The questions for the second may be as follows:

Where is the brain? Do we think with it? Should we strike any one on the head? Is the heart always beating? When you are asleep? Why is baby like a flower? What is tender? Why do we love baby? How long should we love it? What is meant by "While we are here"? Shall we go somewhere else? Where? When? Can you tell how well you love your sister? brother? father? mother? Who knows how well? Who knows all things? Write all the words with short *a*; long *a*; broad *a*; short *e*. Write words in the place of naught, rear, rest. Write names used in the family, as, father, mother, papa, mamma, brother, etc.

Arrange such forms as this:

One who teaches is called a teacher.

"	preaches	"	_____
"	talks	"	_____
"	paints	"	_____
"	writes	"	_____
"	plays	"	_____
"	runs	"	_____
"	reads	"	_____
"	sings	"	_____
"	sews	"	_____
"	sows	"	_____
"	farms	"	_____
"	idles	"	_____
"	laughs	"	_____
"	digs	"	_____
"	learns	"	_____
"	loves	"	_____
"	tattles	"	_____
"	fights	"	_____

One who	gives	is called a	———
"	hunts	"	———
"	traps	"	———
"	weaves	"	———
"	travels	"	———
"	spins	"	———
"	prints	"	———
"	moves	"	———
"	works	"	———
"	walks	"	———
"	owns	"	———
"	tans	"	———

The following diagrams for forming derivatives from primitive words will prove an excellent thing for seat work. Make three columns; in the first place the primitive, in the second add *ing*, in the third add *ed*, thus:

change	changing	changed	rob	robbing	robbed
range	——ing	——ed	sob	——ing	——ed
fire	———	———	rub	—— "	—— "
glide	———	———	bud	———	———
chide	———	———	brag	———	———
curse	———	———	beg	———	———
curve	———	———	cut	———	———
scourge	———	———	lag	———	———
serve	———	———	hem	———	———
merge	———	———	hum	———	———
wedge	———	———	sin	———	———
pledge	———	———	dig	———	———
force	———	———	rig	———	———

Encourage the pupils to make long lists of these words, using, first, all words ending in silent *e*; second,

monosyllables, or words accented on last syllable, with consonant following a single vowel; third, those ending in *y*. This method will teach the correct formation and spelling of more than three hundred derivatives used by the pupil of this division.

The rules can be given and memorized if desired, and the exceptions noted.

While reading in this division, at least one lesson each week should be devoted to reading matter entirely new to pupils. A story book or a corresponding book of another series is sufficient. The teacher can easily procure this from some of the pupils who have probably used a different series at some other school. The teacher who expects to teach a number of terms can at a very slight expense procure a number of different books of this division. The pupils may be called upon individually to read from the book. The way in which they read new matter similar to what they are learning is a good test of the value of the teaching done. It also tests to a degree the ability of those who listen, to comprehend the subject matter. It develops the class in a two-fold manner. Three books of a kind are all-sufficient in this exercise; one for the teacher, one for the pupil reading and another for the one who is to follow the one reading, in order that no time be lost

Question as severely in the presence of visitors as when alone; test the poor pupils as thoroughly as the bright, and attempt to awaken thought by every question.

Continue the vocabulary begun with the Primary Division; make the list complete and regular. Do not select the words at random, and do not neglect to give

a few words each day. Drill carefully upon the pronunciation, spelling and correct use in sentences. Be sure that every pupil can use each word correctly in both oral and written sentences.

The following vocabulary should be thoroughly given and tested. Take the words in order, not more than five or ten at one lesson, at the teacher's discretion, and devote not more than two minutes daily to drill in pronunciation and use. Let the teacher be sure he can pronounce all of them. The teacher's pronunciation should be correct. An unabridged dictionary should be a constant desk companion. Let the teacher take the reader in use and supplement the list by all the words in his book not found in this list, being careful to place each word in its proper column, as designated by the vowel sound:

ă	drag	handsome	planning
and	dram	hang	planted
act	dapple	hanging	planting
apples	dandy	hatched	plashing
adds	dandelion	hatching	rather
Albert	damask	harrowed	ragged
answer	damage	jam	rascal
apt	fact	January	sandy
anxious	fancy	landed	sang
blackberries	Fanny	lands	splash
blacking	fanning	lap	splashing
began	family	laprobe	standing
band	flash	lapdog	sparrow
clash	flashed	manhood	Saturday
crash	flashing	mankind	swam

carry	flatter	manly	traps
carries	flat	madly	trapping
carried	gather	maddest	tracks
carrier	grandpa	matches	travels
camel	gather	nap	than
candle	gathered	napping	unhappy
catches	gladly	nag	value
catching	gladness	patter	valley
clap	gathering	patting	wrap
clapped	hand	patted	wagged
Clarence	hands	pan	wrapping
crack	handle	plan	wagon
cracking	having	planned	wagging

ĕ	cents	tell	guess
Edward	correct	vest	bread
ascends	corrects	whether	forget
again	eggs	whet	heavy
against	deaf	when	dead
elm	felt	wed	petted
enter	gentle	wedding	said
every	guest	Wednesday	seven
else	help	yellow	themselves
ever	health	yesterday	redbreast
engine	letter	spell	telling
best	length	sent	ahead
breakfast	many	himself	fences
better	pleasant	present	fretted
bedtime	pelt	Nellie	twelve
beckon	never	stem	twenty
cellar	ready	Ella	seconds
selling	rested	dressed	February

sent	resting	thread	September
sending	tenth	plenty	November
ĭ	hitch	picked	twinkle
bit	hitching	pickle	twigs
build	hitched	pimple	timid
built	hissing	pistol	tingle
building	Indians	pity	thimble
busy	inches	pinch	thinking
bigger	jingle	pictures	until
begins	Kitty	richer	visited
children	kitten	ribbon	visitor
cripple	kitchen	ripple	vineyard
chips	kindle	richest	willing
city	kissed	swimming	whistled
chicken	killing	sixty	win
crickets	live	ship	winter
distance	listen	singing	window
dinner	little	silk	willow
drinking	licked	sticking	wished
drifted	limping	sitting	wintry
filled	mill	singers	whittle
fingers	missed	sick	whittling
fitted	mĭnute (it)	silly	whistling
forgive	mischief	silver	whinny
fifty	million	swiftly	widow
fifteen	mix	think	women
given	milking	thing	wishing
gift	nimble	tin	
ŏ	dollar	long	robbing
Boston	Dolly	moral	rocked
box	Dot	mock	stopped

blossom	doll	mocking	spotted
belong	forgot	often	sorry
broth	frog	offer	song
bottom	frolic	odd	songster
across	follow	orange	strong
aloft	frost	oranges	scoff
cobweb	forehead	office	soften
cost	flocks	pocket book	stock
copper	forest	prompt	stronger
coffee	frosty	prong	scholars
closet	followed	polish	sorrel
cloth	forgotten	popper	softly
common	gone	popped	tomorrow
comic	gossip	popcorn	tossed
cough	hod	promise	trot
copy	honest	pond	tongs
crop	knock	robin	tosses
dog	knob	rocks	yonder
drops	lost	robber	trough
doctor	lock	robbed	was

ō	depot	notes	showed
ago	Flora	open	soldier
although	frozen	owner	stone
broken	four	only	scold
bones	folks	oral	soar
both	floor	older	sore
bow	forth	October	sober
bold	fourth	pony	throws
before	growth	portrait	throat
coasters	grown	poultry	though
coax	goes	pork	told

closed	going	poured	tore
core	home	rolled	toward
comb	hold	rougue	vote
clothes	homely	Rosa	voting
coarse	hoed	road	whole
cloak	Joe	sold	wholesome
coat	known	store	wholly
colt	more	show	holy
cold	moment	shown	won't
core	moan	shone	worn
coals	noble	sofa	wore
door	notice	story	
o̤	cushion	hood	stood
bṳsh	full	hook	shook
bo͝ok	forsook	looked	wood
cook	foot	pull	would
crooked	good	push	wooden
o̤	cocoon	coop	croup
canoe	caboose	cool	do
o̤–ṳ	hoot	ooze	soon
brute	hoof	prove	tool
boot	loose	pool	tooth
bruise	lose	roof	two
bouquet	loom	room	threw
broom	loop	roost	through
balloon	mood	rule	you'll
bosom	moose	root	you've
droop	moon	rude	you're
drooping	noon	raccoon	your
fool	move	roomy	who
food	poor	saloon	whooping

ū	cure	flute	newspaper
blue	cube	few	news
acute	cruel	fluted	knew
ague	chew	glue	pupil
amuse	duty	grew	pure
beauty	due	music	perfume
beautiful	dewdrop	mule	puny
blew	dew	new	Susan
ä	calf	half	papa
aunt	calm	hearth	pardon
ah	calves	harm	psalm
Arthur	dart	halves	party
arm	darted	launch	salve
bars	darling	largest	sparkles
balm	farmer	lark	sparkled
carcass	father	laughed	starved
cän't	farther	laugh	start
Charles	gape	mammä	snarl
charm	garden	mäam	tardy
charcoal	grandpa	path	taunt
charge	guard	palm	varnish
á	amass	chance	cast
ask	alas	clasp	casket
asked	basket	class	command
after	brass	contrast	
band	grass	mask	pasture
dance	graft	mastiff	task
draft	lance	pastor	vast
demand	mast	plaster	waft
ā	favorite	maple	raindrop
able	gayly	maiden	railroad

afraid
apron
aye
baby
blades
Babel
became
basement
cakes
casement
chase
danger
daily
David
failing
failure

great
game
greatly
graceful
grate
hay-making
James
lace
ladies
lazy
Mary
making
made
Maine
Maryland
matron

neighs
named
namesake
patron
patient
payment
paid
plain
paints
pale
playmate
playing
playful
razor
raining
rainbow

Sarah
shaped
stable
shake
sailors
shade
saving
they
taking
today
taste
taken
vacation
wakes
waken
waved

â

air
heir
bear
bare
care
careless
careful

caring
chair
compare
dare
declare
daring
fair
farewell

hair
hare
lair
mare
ne'er
pare
pear
rare

share
scare
stare
stair
scarce
stairway
where
wearing

ô–a̤

autumn
August
auburn
organ
born
because

called
calling
for
lordship
Lord
morning
mortal

northem
normal
naughty
nor
pauper
saucer
short

saucy
storm
stormy
walk
walking
always
drawing

ẽ–ĩ–ũ	circulate	first	learn
bird	durst	fur	mirth
birth	dirt	further	purr
curling	earnest	girl	purse
certain	earl	heard	pearl
curve	earth	hurry	prefer
curry	fern	jerk	servant

ē	cheering	gleaming	nearest
beat	dreary	greasy	next
beaten	deeds	hearing	neat
bead	ear-rings	heedless	needy
beak	even	jeering	seas
bee-tree	evening	keen	seals
bee-bread	eastward	kneels	scream
creeps	eastern	leaping	stealing
creek	eaten	leaves	speaking
creak	fearful	least	see-saw
cream	fearless	leaning	seam
cheating	feast	meeting	seashore
cheese	feeling	mince-meat	tea-set
cheerful	free	needed	weeded
cheerless	greedy	needle	

ī	frightened	mining	sight
brighten	fight	minding	shining
brighter	Friday	miles	sunshine
bedtime	flying	miser	smiled
buy	goodbye	nine	lively
bridle	giant	nineteen	lighter
alike	grinding	ninety	tiny
awhile	hiring	outside	trifles
alive	hiding	idle	tighten

cider	inside	prize	trifled
aside	July	ripened	tied
cries	kite	riding	vine
crying	knife	iron	writing
dime	kindness	replied	wild-geese
drying	lying	side	
diamond	lighten	strikes	
finding	lightning	surprise	

ou			
around	drown	hour	noun
bound	drowned	out	pronoun
brown	down	hound	plow
counted	downcast	howls	pounding
crown	frown	loud	rounding
coward	found	mouse	sound
crowded	flowers	mound	town
cloud	ground	mouth	without
clown	growl	mountain	
	horn-owl	mount	

oi			
boil	coiling	noisy	voice
boyhood	foil	poison	voyage
broiling	hoist	royal	
	loyal	toy-shop	

In Fourth Reader arrange words of a lesson with reference to syllabication, taking monosyllables one day, dissyllables another, trisyllables another, etc.

Make lists of words accented upon the first syllable; upon the second; upon the third.

Encourage members of the Fourth Reader class to purchase small dictionaries, but do not insist upon it.

In this division the pupils should be taught to recog-

nize the common derivative words, and from them to determine the primitive ones, and *vice versa*.

The meaning of prefixes and suffixes, if learned at all, must be learned in the reader, not in the speller. This exercise should begin here and advance with the reading.

Do not allow pupils to attempt to read beyond their comprehension. Let pupils bring story books from home to read aloud in the class.

Have pupils accent words upon any syllable for developing the power and use of the voice.

Memorize selections containing gems of thought.

(*Write these sentences, using* this *for* these *and* these *for* this.)

1. Is this horse blind?
2. Is this my knife?
3. Are these books sold?
4. This is the ox.
5. See this fox!
6. Did you read this page?
7. These cats were crying.
8. This song was sung.
9. These lights shine.
10. This mouse runs.
11. This goose swims.
12. Is this fly on the cup?
13. These pages are black.
14. Is this my marble?
15. These are my shoes.
16. Is this the key?

(Rewrite this on the slates, putting in capitals and punctuation marks. This is "busy-work" for the slate.)

they could not find minnie aunt nellie looked, and cousin lucy looked, and mamma looked who did find her do you know yes, i know who found her dick found her shall i tell you who dick was he was a dog he found minnie in lucy's trunk what was she doing in the trunk she was asleep in the trunk is not a trunk a funny bed could i sleep in a trunk am i too big lucy was a little girl she could sleep in a trunk would you like to sleep in a trunk

ORTHOGRAPHY.

If the spelling book is used at all it should not be introduced before the pupil enters the Fourth Reader grade. Spell every new word in the reader when first found and constantly review those likely to be misspelled. Spell all proper names from the geography likely to be missed. Do this in other branches, also.

Place all pupils who are qualified to do the work in the advanced spelling as outlined in Advanced Division.

Rule slates or paper like the following: place the derivatives in the first column, the primitive with the prefix or suffix in the second, the meaning in the third.

Derivative.	Primitive + suffix.	Meaning.
finer	fine + er	more fine
brighter	—— ——	—— ——
boldly	bold + ly	in a bold manner.
rudely	—— ——	—— ——
leader	lead + er	one who leads.
teacher	———	———
reader	———	———
speaker	———	———
commander	———	———

BEN FRANKLIN'S WHARF.

ca-reer, *course of life.*
con-ven ience, *accomodation, benefit.*
cul prits, *wrong-doers.*
ex-ploit, *noteworthy deed.*
mag is-trate, *judge.*
plight (plīt), *condition, state.*
prin ci-ples, *rules of conduct.*
re-proof, *rebuke, censure.*
ver i-ly, *truly.*

1. When Benjamin Franklin was a boy he was very fond of fishing; and in the story of his life, written by

himself in later years, he gives an amusing account of an exploit that grew out of this sport.

2. It seems that the place where Ben and his playmates used to fish was a marshy spot on the outskirts of the town of Boston. On the edge of the water there was a deep bed of clay, in which the boys were forced to stand while they caught their fish.

3. "This is very uncomfortable," said Ben Franklin one day to his comrades, while they were all standing in the quagmire.

"So it is," said the other boys. "What a pity we have no better place to stand on!"

4. Now, it chanced that scattered round about lay a great many large stones which were to be used for the cellar and foundation of a new house. Ben mounted upon the highest of these stones.

5. "Boys," said he, "I have thought of a plan. You know what a plague it is to have to stand in the quagmire yonder,—over shoes and stockings in mud and water. See, I am bedaubed to the knees, and you are all in the same plight.

6. "Now I propose that we build a wharf. You see these stones? The workmen mean to use them for building a house here. My plan is to take these same stones, and carry them to the edge of the water, and build a wharf with them. What say you, lads? Shall we do it?"

7. "Yes, yes," cried the boys: "that's the very thing!" So it was agreed that they should all be on the spot that evening as soon as the workmen had gone home.

8. Promptly at the appointed time the boys met.

They worked like beavers, sometimes two or three of them taking hold of one stone; and at last they had carried them all away, and built their little wharf.

9. "Now, boys," cried Ben, when the job was done, "let's give three cheers, and go home to bed. To-morrow we may catch fish at our ease." The cheers were given with a will, and the boys scampered off home and to bed, to dream of to-morrow's sport.

10. The next morning the masons came to begin their work. But what was their surprise to find the stones all gone! The master-mason, looking carefully on the ground, saw the tracks of many little feet leading down to the water-side. Following these he soon found what had become of the missing building-stones.

11. "Ah! I see through it," said he: "those little rascals who were here yesterday have stolen the stones to build a wharf with. And I shouldn't wonder if Ben Franklin was the ringleader. I must see about this."

12. He was so angry that he at once went to make a complaint before the magistrate; and his Honor wrote an order to "take the bodies of Benjamin Franklin, and other evil-disposed persons," who had stolen a heap of stones.

13. If the owner of the stolen property had not been more merciful than the master-mason, it might have gone hard with our friend Benjamin and his comrades. But, luckily for them, the gentleman was amused at the smartness of the boys; so he let the culprits off easily.

14. But the poor boys had to go through another trial, and receive sentence, and suffer punishment, too, from their own fathers. Many a rod was worn to the

stump on that unlucky night. As for Ben, he was less afraid of a whipping than of his father's reproof. And indeed, his father *was* very much disturbed.

15. "Benjamin, come hither," said the stern old man. The boy approached and stood before his father's chair. "Benjamin," said his father, "what could induce you to take property which did not belong to you!"

16. "Why, Father," replied Ben, hanging his head at first, but then lifting his eyes to Mr. Franklin's face, "if it had been merely for my own benefit, I never should have dreamed of it. But I knew that wharf would be a public convenience. If the owner of the stones should build a house with them, nobody will enjoy any advantage but himself. Now, I made use of them in a way that was for the advantage of many persons."

17. "My son," said Mr. Franklin solemnly, "so far as it was in your power, you have done a greater harm to the public than to the owner of the stones. I do verily believe, Benjamin, that almost all the public and private misery of mankind arises from a neglect of this great truth,—that evil can produce only evil, that good ends must be wrought out by good means."

18. To the end of his life, Ben Franklin never forgot this conversation with his father; and we have reason to suppose, that, in most of his public and private career, he sought to act upon the principles which that good and wise man then taught him.

These questions will give an idea as to what may be selected by the teacher to bring out the knowledge of the pupil. The lesson given is sufficient for an ordinary week's work in a country school, if the sugges-

tion of reading review lessons for practice, as given on another page, is followed. The teacher will find near the school house a ditch, creek, or pond, where, by the use of a few pebbles or bricks, the boys may be taught to construct a wharf. Make them see clearly the meaning of wharf and why the boys wanted one. Then write on the board, (let pupils use slates in answering.)

What is the subject? What is a wharf? Who was Franklin? Find out something about him. Where was he born? Where did he live? What is a story? Who wrote the story of Franklin's life? Mark the words *wharf*, *written*, *amusing*, *sport*. Write the words in the first paragraph containing oi or oy, ẽ, ĕ, ĭ, ou.

The above is fully sufficient for one lesson. Perhaps it could be better given in two. Continuing from day to day, the teacher should also add such questions as these: What word or words could you place in the place of "amusing account"? of "exploit"? of "sport"? Write these words in columns, placing opposite to each its synonym. The following questions are suggestive and may be continued at the teacher's discretion. Have the above and other questions answered by pupils on their slates.

TO BE ANSWERED UPON THE SLATES.

What is the subject? Find all you can about Ben. Franklin. Where was he born? Where did he live? What was he fond of? What is a story? Who wrote the story of Benjamin Franklin's life? What is meant by *later years?* What does he tell in this story? What is *amusing?* What is an *exploit?* Who are play-

mates? Where did Ben and his playmates fish? Define *marshy*. What is meant by the "outskirts of Boston?" Where is Boston? Can you tell anything about Boston? Have you heard of Bunker Hill? Of the "Boston Tea Party?" Did these boys fish in a creek or pond? What is a creek? A pond? Where did they stand while fishing? What did Ben say to his comrades? What did the boys answer? Write and mark *fishing*, *amusing*, *marshy*, *caught*, *quagmire*, *comrades*. Write in columns the words containing ā, ă, á, ä, ĕ, ẽ, ĭ, a̤ or ô. Arrange the derivatives, thus:

fishing	fish + ing	
later	late + er	more late
written	write + en	
amusing	amuse + ing	
marshy	marsh + y	like a marsh
forced	force + ed	
uncomfortable	un + comfort + able	not comfortable
standing	stand + ing	

Write the names of parts of the following objects: Shoes, clocks, chairs, windows, bells, hats, wheel, broom, door, cent, apple, tree, kind of trees, bucket, knife, pins, lead pencil, cup.

Name some articles made of these materials:

gold	cotton	wool	tin
straw	leather	wood	slate
glass	marble	hair	lead
bone	paper	flour	wire
iron	copper	lime	milk

Occupations.—Write sentences, telling what each of the following do:

grocer	peddler	caterer	pilot
baker	confectioner	dentist	salesman

shoemaker	currier	cashier	astrónomer
printer	miller	moulder	actor
jeweler	engineer	policeman	operator
tailor	stationer	fireman	messenger
miner	merchant	coachman	conductor
barber	broker	surveyor	sculptor
engraver	importer	seamstress	manager
tinker	upholsterer	detective	comedian
toolmaker	book-binder	juror	postman
druggist	clothier	auctioneer	gilder
stone-cutter	banker	clerk	weigher
gun-smith	compositor	wheelwright	prophet
mason	furrier	vender	usher

Have the spelling class to spell on their slates some ten or twenty words. Select a committee from the class to correct the errors and do the marking. Hold them responsible for the correct marking.

Give lessons on familiar objects, thus:

Cat—Kitten.

parts	body	nostrils	runs
head	ears	tongue	climbs
neck	hair	whiskers	mews
legs	fur	paws	purs
feet	teeth	claws	laps milk
tail	eyes	*doings*	catches mice

The cat laps milk.

The cat has two eyes.

Extend this so as to make sentences, using all of the above words. Have it all written. Be sure to examine it.

Use these words in the same way:

dog — pup
cow — calf
sheep — lamb
horse — colt
goat — kid
hen — chick or chicken

Name the parts, kinds and actions of the following animals:

mice	spiders	fish	clams
birds	roaches	oysters	crabs
deer	gnats	turtles	mussels
foxes	butterflies	mosquitoes	rabbits

Write the names of things in the sitting room; in the dining room; in the kitchen; made of wood; made of iron.

Write 20 words containing the sound of ā.
" " " " " " " ē.
" " " " " " " ī.
" " " " " " " ä.
" " " " " " " ō.
" " " " " " " ū.
" " " " " " " ă.
" " " " " " " ĕ.
" " " " " " " ŏ.
" " " " " " " ŭ.
" " " " " " " ou—ow.

Write the names of things bought or sold by the pound; by the yard; by the acre. Write the names of all the boys in this school; of all the girls. How do you begin each word? Write the names of objects in the room; on the school ground; that you might see on your way to or from school.

Give frequent exercises, naming some topic, as Arithmetic, requiring the pupil to spell all the principal terms connected with it. Encourage them in securing the largest lists; thus:

ARITHMETIC.

NOTATION.
Arabic.
Roman.

WEIGHTS.
Apothecaries.
grain.
scruple.
drachm.
ounce.
pound.
Avoirdupois.
dram.
ounce.
pound.
quarter.
hundred weight.
ton
Troy.
grains.
pennyweight.
ounce.
pound, etc.

NUMERATION.
French.
English.

ADDITION.
plus.
addend.

SUBTRACTION.
minuend.
subtrahend.
difference.
remainder.
minus.

MULTIPLICATION.
multiplier.
multiplicand.
product.

DIVISION.
dividend.
divisor.
quotient.
remainder.

NUMBERS.
abstract,
concrete.
whole.
fractional.
simple.
compound.

FRACTIONS.
common.
proper.
improper.
single.
simple.
complex.
compound.
decimal.
pure.
mixed.

TABLES.
Money.
Federal.
English.

Have tables like these writen out on slates: Encourage pupils to find other words.

Names of things on or about a farm.	*Vegetables.*	*Family.*	*A boy may be*
	herbs	father	apt
	beans	papa	quick
farmer	peas	mother	merry
farm	corn	mamma	blithe
acres	beet	son	busy
tenant	squash	daughter	kind

farmhouse	pumpkin	child	laughing
trough	potatoes	children	gentle
tools	turnip	baby	clean
implements	sprouts	brother	washed
utensils	parsnip	sister	mended
harrow	radish	grandpa	healthy
cultivator	lettuce	grandma	well-dressed
reaper	cabbage	uncle	well-behaved
mower	onion	aunt	
thresher	sweet potato	cousin	dull
pitchfork	watermelons	nephew	———
barnyard	asparagus	niece	———
poultry	tomato	grandson	———
plow	horse radish	grandaughter	———
hoe	mustard	grandchild	———
rake	muskmelon	brother-in-law	———
horses	cucumbers	sister-in-law	———
mules	mushrooms	father-in-law	———
cows	pickles	mother-in-law	———
haystack	sourkrout	wife	———
		husband	———

In the following methods, which have all been found beneficial, some are standard, that is, may be used longer than others without varying. Do not use any one too long, nor change too often. Hold fast to the good, and vary with the occasional methods.

I.

Each reading the same paragraph or stanza. Have each pupil to read the same division, to see who will make the fewest mistakes. If you can convince your pupils that your desire is for their success, you can succeed well by this method.

II.

Name a certain number of lines (three or four, or a sentence) which the pupil may read, requiring him to go back to the beginning every time he makes a mistake, until he makes none to be noted especially. You will find your pupils soon becoming careful, accurate, and proficient under this method.

III.

Divide your class into two or more sections; have the first read a sentence or two lines; the second read the following sentences or lines, etc. This will keep all the class attentive.

IV.

This is essentially the same as the individual reading, except having the class read by two's in concert. By this method each pupil may read twice as much as by individual reading and the teacher is not materially hindered from noticing individual mistakes. It is a good way.

V.

Let the teacher read one line or sentence; the class the next, etc. If the teacher be a good reader this will prove a good method, otherwise it is shortlived.

VI.

Repeating after the teacher has about the same to commend it as the preceding. It is a good way if the teacher is a good reader.

VII.

Let the pupils read singly, by couples, and in concert, looking off the book as much as possible. This will

train them to see more than one word at a time. Select a simple piece at first, afterwards making the selections more difficult. Keep this up until the pupils can nearly or wholly see one line at a glance. The benefits of this method are that it enables the pupil to read the thought, to give his hearers expressions of intelligence and emotion through looks and gestures. He is enabled to give an intelligent reproduction of the selections.

VIII.

Let one pupil begin and read until you call upon another. Let the first cease as soon as the second is called, even if he is in the midst of a sentence, phrase or word. Have the other begin where the first left off. When the second fails to begin right, call a third, fourth or fifth, etc., until it is read correctly. Do not call in regular order. Do not allow any whispering or other confusion to detract from the attention of the class. Call oftener on the lazy and careless pupils.

IX.

Select one, two, or three pupils for critics, calling them "Critic No. 1," "Critic No. 2," "Critic No. 3," etc. Name two or three lines to be read by a member of the class. After he has finished, it is the duty of No. 1 to rise and point out all the mistakes made. After he is through, call on the class for any he may have failed to see. Select another sentence or number of lines. Proceed with No. 2, as with No. 1, etc., until each has done his part at criticising. Do not allow several pupils to give the same criticism, merely signifying it by raising hand is sufficient. Call upon one to give his criticism, all others having only the same will then lower their

hands. Do not allow pupils to interrupt by attempting to correct a pupil while reading. Do not allow pupils to raise hands while a member of the class is reciting. And never permit a criticism before you request it. By following this plan, criticism is useful in the highest degree; otherwise it is not.

The preceding are standard methods, and can all be used with good results.

X.

Let the pupils read in successive order, the teacher noticing the first error, when the next corrects the error, and, beginning where the first left off, reads until an error is committed, which is corrected by the third, and so on. Be careful in this method, as the best readers will read most, thus depriving the poorest of that which they need most, the drill.

XI.

Read to mistake judged by the pupil who reads from that point. Let pupils raise hands where mistake is made, the teacher selecting the one to correct it, and follow in reading. Call on the poorer readers oftener.

XII.

An occasional method is the medley. Select some easy poem where the lines are of about equal length. Have A begin; he reads the first line; as he begins the second, let B commence with the first. A then reads the third, B the second, and C the first, etc., until all are reading at the same time, while each is reading a different line. This develops concentration and force.

XIII.

Read to punctuation mark.

XIV.

Read a sentence.

XV.

Read a line.

XVI.

Let first pupil read a line, second repeat it, third read second line, 4th repeat it, etc.

XVII.

Let first read two lines, second repeat second line and read third line, etc.

XVIII.

Let A read the first word; B the first and second; C the first, second and third; D the first, second, third and fourth, etc., each pupil repeating all that has been read before and adding one word.

XIX.

Try same plan as preceding, using a line of poetry instead of a single word. This is an excellent way for the class to memorize a poem.

XX.

Teacher read, members of class giving the thought afterwards in their own words.

ORAL GEOGRAPHY—INTERMEDIATE DIVISION.

Object.—To prepare the pupil for the use of the text book by giving him the primary ideas of the subject,

and by teaching him the use of maps together with their geographical symbols.

Materials.—The globe, maps, when needed.

Extent.—The primary ideas with a fair oral course in the geography of the school district, the township, the county, the state and the United States. A brief view of the globe as a whole.

Organize a class of pupils from the Second and Third Readers together with those who have never studied geography from the Fourth Reader. It will not be best to require those from the last reader to enter the class in many districts, as this will be antagonistic to the notions of both pupil and patron. In such cases the little ones can be controlled and prepared for the text book, while the Fourth Reader pupils are passing out of the school without any geography. The classification can only be perfected in this manner.

It is of the greatest importance that you lead the child to see the facts without telling him; that is, ever guide him in the pursuit of knowledge, but let him find out the *fact* and *tell* it himself. The child acquires a real knowledge of things by actual observation, hence we should employ the *senses* in leading him to *see* things. Whenever practicable bring the object before the class; better still, have the pupils furnish the objects when practicable. Give the pupil much *to do* in these exercises; hands and feet are valuable aids to the mind; use them to that purpose.

Be brief and pointed; a few minutes with eyes and hearts all alive are worth a half hour of listless, sleepy work.

If necessary, spend several days upon a lesson, only

be sure that the pupil comprehends it before you drop it. Come back to last lesson for a minute to fix cardinal truths, or to test the pupil's knowledge.

It is absolutely necessary that you make special daily preparation for the lesson; without this you can hope for no good results. The teacher must have "the spirit and the understanding."

OCTOBER—THE PRIMARY IDEA OF TIME, POSITION, AND DIRECTION.

Secure the statement that the light is called day and the darkness night. That days are long in summer and short in winter; that the nights are the reverse. That the winter evenings are long and those of the summer short. That day and night taken together constitute a day, (a *natural* day.) That some nations began the day at sunrise, (Babylonians,) others at sunset, (Jews,) and others at midnight. Our day begins and ends at midnight, (called a *civil* day.) That there are 24 hours in a day.

That the sun rises about —— o'clock and sets about —— o'clock. That the clock strikes 12 times in a half-day, 6 times from 6 o'clock to 12, 3 times from 9 o'clock to 12, 1 time each hour, etc. That there are three hours in a half-day session of school, six hours in a day session; fifteen minutes in a recess, number of recesses in an hour; time of a recitation; time to recess; time to eat breakfast; time of noon recreation;—at this point have pupils learn time table if they do not already know it.

Exhibit clock or watch; it will add to the interest to ask all the little folks who own a dumb watch to bring them to school, and then have them *used* in illustrating

the following lessons: That the hands move to the right hand from XII; the minute (long) hand moves more rapidly than the hour hand; their *use*; the *use* of clocks and watches, how to tell the time of day by the hands. That noon marks show the *time* at *noon*—useless, when? Here tell the class of King Alfred's notched candles and how he determined the time by them. Draw picture of hour glass, or contrive one from the egg shell; this may be nicely done by placing a piece of cardboard upon a glass, taking a half shell, puncturing it at the apex, setting it within a hole cut in the cardboard and filling it with find sand; the sand will pass through the opening and may be seen falling within the glass. Children will be delighted with this. Erect a rude sun dial upon the door sill, or if the noonday sun shines through a window, upon the sill of same; use a cardboard and simply pass a long nail upward through it; by noting the noon hour, use rule and pencil to draw noon mark, then as the shadow turns, draw hour marks in same manner. If encouraged some ingenious boy will construct a dial, decorated with drawings in pencil. Show the children how they may make a pocket dial from a pill box and a *pin*, (the pin may be carried within the box when not in use.)

If not already known attend to the number and days of the week; weeks in a month; weeks and months in a year; repeat time table.

That to the right is at the —— hand, and to the left is at the —— hand; to the front is in —— of you and at the back is in the —— of you. Have pupils name lists of objects in front of them, at the back, at the right; thus, "the table is in front of me;" "the door

is at my back." Extend this to objects in the vicinity of the school. Have pupils change position and review; name numerous objects and have pupils locate by giving position; name pairs of objects and have pupils give position with relation to each other.

Place objects upon the table and have the position given by reference to the edge of the table as the *front*, *back*, *etc.*

By using the corn, buttons, beans, etc., the wide awake teacher may vary this exercise upon position by fixing a bean as a central object, and then have pupils place two red grains at the *left*, one white one at the *right*, three beans at the *back* and four shoe pegs (or other objects) in front of the bean.

Hold a stick (tooth-pick) in a vertical position, have pupils do same, then ask one to draw a *vertical* line; have class to draw several vertical lines. In same manner, secure the horizontal line. Have them point out vertical and horizontal objects in and about the room, (the walls, the floor, the table, the door, the stove-pipe, etc.)

Secure a knowedge of the slanting position in the same manner. Parallel lines and angles in the same way. Have them make these latter by using the tooth-picks thus: ⊥ + ∠ ∨ ×

Broom wire may be used to teach curved lines.

Take the children into the yard or street (at noon) and have them make a little heap of earth; find *slanting* side, *horizontal* top, *vertical* side, *parallel* sides or gutters.

Develop the idea of surface by means of objects; an empty box is best; show the inside and the outside, etc.

Pupils face the rising sun, the setting sun, the noon-day sun; the sun rises in the ——, and sets in the ——; have them face the ——, the ——; tell the direction of the shadow at ——, ——, and ——; have them face shadow at noon; this is north and their backs are toward the south; in their position their right hands are at the ——, their left at the ——, etc. Have pupils face and point in these directions, giving *position* of hands; proceed to sides of room, ends, to objects, securing statements as to direction of objects.

Have pupils walk so many steps toward the south, the north, etc.; consider direction of the cracks in the floor, of the different edges of the table, sides of the room, ends of the room; name objects in different directions from the school-room; have pupils give direction they walk in going to and from school; in going home.

Have pupils draw chalk lines in certain directions upon the floor, upon the board, (here assist them in drawing the north and south line.)

Teach the intermediate (semi-cardinal) points in same manner.

For review have two pupils take a long string and hold it by the ends; now have others tell the direction of each from the other; change position and question as before. Give direction of *north* wind; of south wind; of east wind, etc.

Construct numerous sentences leaving blanks to be filled; have pupils copy these with blanks filled.

Pass to the November work when the above is com pleted, do not wait for examination day to do so.

NOVEMBER.—THE PRIMARY IDEA OF DISTANCE, OF A MAP.

Compare objects of different lengths; measure them with a foot rule, rather have pupils to do so; have pupils to draw lines of certain lengths upon the board; put them to measuring pencils, desks, slates, books, windows, the table, the floor, the platform, and have the measurements recorded by each individual in some such form as this:

Oliver Rose.	*Eddie Morse.*
Pencil, 6 inches.	Pencil, 7 inches.
desk, 11 by 20 inches.	desk, 12 by 20 inches.
slate, 8 by 10 inches.	slate, 8 by 12 inches.
book, 4 by 6 inches.	book, 5 by 6 inches.
window, 3 feet.	window 3 feet 2 inches.
table, 2½ by 3 feet.	table, 2½ by 3 feet.
floor, 20 by 30 feet.	floor, 20 by 30 feet.
platform, 6 by 10 feet.	platform 6 by 10 feet.

Inspect the record and check off all that are erroneous. Have same re-measured and corrected.

Have pupils to *make* yard measures from sticks, or laths; have these yard-sticks used in measuring the dimensions of the school lot, distances to objects. Have pupils stand some distance apart, guess the distance and *measure* it.

Have pupils *make* a rod measure from a line. Measure greater distances with this. Compare distances of various objects; distance of pupils from the school; proceed in this manner until the child shows the distance of a mile; to town, etc.

Consider the upper part of the board as north, the bottom south, the right hand east, the left hand *west;*

draw a map of the school room on a definite scale, as an inch to the foot; locate objects upon the map, as door, windows, desks, table, chair, stove, aisles, etc; have pupils select their desks and indicate by initial letters of name.

Have pupils locate all objects by actually pointing them out with the pointer and stating location in a well rounded sentence, *Turn from the map to the real objects.* Show what is meant by the boundaries of the room; of a farm. Pupils bound the school yard. Have each pupil to draw the map upon his slate.

Draw *small* map of room, then the grounds *around* it considerably larger, showing road, etc.

Review thoroughly all the preceding directions upon the map including *distance.* Have pupils draw map upon their slates.

Such a scheme as this, is an excellent one to furnish practice upon direction:

4	3	1
9	5	2
7	8	6

Which direction is 1 from 5? Two from 5? Eight from 3? Seven from 1? Six from 4? Five from 6?

Draw a neat map of your own township, upon a fixed scale; represent upon this map the objects known to the pupil; there will be roads, villages, streams, woods, hills, buildings, etc.

Review all the preceding points upon distance, boundaries, etc. Continue this until the pupils are able to locate all the objects of interest within the township, and to draw a reasonably good map of it.

Treat the symbols used for fixing these objects with care, as the pupil may get the impression that they represent *size* as well as location.

HOME GEOGRAPHY.

Take your pupils upon imaginary or real walks in different directions from the school house. Have them describe the surface of the country as they proceed; talk of a stream crossed, of rills, brooks, (rivulets, brooklets,) ponds, lakes, springs, deep and shallow water in streams, ripple, shoal, etc; of bridges, of hills, features of the valley if found, (the land adjacent to the stream represents a valley.) Talk of prairie and woodland.

Review township map and note places passed in this walk; have pupils describe surface of ground in different parts of the township. Renew the walks and note the nature of the soil, whether stony, sandy, clayey, loamy, rich or poor, etc. Talk of the Sahara and of our western prairies. Have pupils name grains raised within the township; contrast these with the grains of China, of South Carolina, of Australia. Pupils make list of grains they have seen, some of which do not grow within the township.

Visit the woods, have pupils list the trees found there; note the difference between a sapling and a shrub. Talk of a pine forest; of one in Central America or in Africa.

Show the pupils a complete shrub and talk of the use of the roots, the stem, and the leaves. Explain how they grow froom seeds; when trees are burned the part received from the air goes back to air, ashes the part received from the ground. Charcoal, how made and use; food for animals; how to tell the age of trees; they do not grow in winter; talk of maple sugar and how made; of India rubber.

Pupils name different kinds of tree fruits; find pictures of different kinds of fruits and talk of them.

Pupils name the domestic animals found in their vicinity; the use of each; tell which eat both animal and vegetable food; which eat only vegetable; kinds of products are wool, flax, cotton, feathers, etc. Pupils name wild animals found in the woods, upon the prairie, in houses, in barns, etc. How some animals live in winter; why some are killed whenever seen

Pupils tell of the different races they have seen; tell what men do in different countries. The names applied to persons engaged in different callings; what each kind of persons do or make. Why a city is called a commercial or a manufacturing city.

Pupils name different kinds of birds found here; birds of prey; domestic birds; talk of the owl and his large eyes; why blind in day; why he sees in the night time. Birds migrate at certain times; some stay all the year; find pictures of foreign birds and talk of them and what they can do. Pupils name reptiles and relate stories they have heard concerning them. What is beef, pork, fowl, veal, pig, mutton, fish, venison?

Talk of spring and its growths; name the spring months; days grow longer, nights shorter, &c. Summer; the position of the sun; haying and harvesting; names of summer months. Autumn or fall; sun nearer the horizon at noon; explain what is meant by horizon; the wild animals provide for winter, man gathers the fruits and vegetables for the winter's use; leaves fall, &c.

Winter, short days and long nights; deep snow in some countries; where? snow-houses of the Esquimaux; many people never see snow and ice; where?

The shorter the shadow of objects the more power the sun has; shadow shortest at noon, &c.

Contrast shadow in the different seasons with the temperature; explain *zenith*, *nadir*.

Show county map and calculate the time necessary to walk across it in different directions at the rate of two miles per hour; locate the streams, hills, ponds, townships, county seat; note differences in surface and soil as found in the county. Draw neat map of county. Pupils point toward places named.

GENERAL WORK.

It is advised that the teacher give to every pupil a good knowledge of the county and of the township in which he lives. Give it to the entire school in the shape of general exercises rather than by class work. See to it that each one can draw a neat map of both. If any teacher feels unable to draw the maps, the Co. Supt. should aid him in so doing. A map of the county should be in every school house, and in such as have not been supplied with one, the teacher should put one on the board or upon paper. The following suggestions and items of interest are given to aid in the general work:

Township.
- Boundaries.
- Area.
- Location in County.
- Population.
- Towns.
- Railroads.
- Sections numbered.
- Churches.
- School houses located.
- Postoffice.
- Objects of interest.

County.
- Situation.
- Boundaries.
- Area.
- Population.
- No. of Townships.
- Railroads.
- Rivers, etc.
- Products.
 - Animal.
 - Vegetable.
 - Mineral.
- County Seat.
- Cities and Villages.
- Occupations of people.
- County officers.
- Rank among counties of the state.
- *Outline maps.*

The teacher should have the pupils to make a list of townships in the county, and find the population of each, to place in a second column, the total making the census for the county.

Such questions as the following are excellent to use as a general exercise for the whole school; in the use of them the teacher should encourage his pupils to ask others bearing upon the same topics.

1. How is ——— County bounded?

2. What is the No. and R. of your township? What is its political name?

3. What is the No. and name of your school district?

4. What village or villages in your political township? What postoffices?

5. What townships do not contain a railroad? A postoffice?

6. What is the area of a school township?

7. What is the area of (———) County?

8. What the population by census of 1880? Of your township?

9. What churches in your township?

10. Give dimensions of the county.

11. What river flows through the county, if any? What natural mounds?

12. What coal mines have we, if any?

13. Name your nearest railroad.

14. How many railroad lines running into the county seat, if any?

15. When was the county organized? When was (———) founded?

16. Where is the poor farm? Of what use is it?

17. Why do we have jails? Where is ours? What officer has charge of it?

18. What is a city? A village?

19. What is meant by the Water Works of (———?) (Teacher explain.)

20. How is the river water purified for the use of the inhabitants of (———?)

21. From what has coal been formed? Why dig for it? Give its uses.

22. Have we a court house?

23. In what Great District is your school, if any?

24. On what railroads would you pass in going from your postoffice to (———?) To (———?) To (———?) To (———?) To (———?) To (———?) To each of our State Normal Schools? To our penitentiaries?

25. Who is your school treasurer?

26. Who are your school directors?

27. How can a pupil, who is a resident of one school district, attend school in another?

28. How many days must be actually taught in each district?

29. How many, and what grades of teachers' certificates?

30. What is a calendar month?

31. What are the school holidays?

32. What three townships do not hold a special election for township trustee? Why?

33. Name some articles manufactured in this county. What is a manufactory?

34. Who is your supervisor or commissioner? What does he do as an officer?

35. What justices of the peace do you know? How many are there in each township?

36. Name county offices with the officers.

37. Where is the geographical center of the state?

38. What parallel passes through this county?

39. What means of income have our schools?

40. What the cost of a year's school in a district?

41. For what items is money paid? How paid?

42. Let the teacher add such questions as he may see fit.

Pass to the December work at once if completed to this point.

DECEMBER—THE STATE OF———.

Suspend a map of your state before the class; have the county pointed out; the state is made up of counties, the county of townships, the township of districts, the district of farms.

Draw outline of county upon the board on same scale as the state map; the state as many times larger

than the county, as the map is larger than the county map. Length and breadth of the state; find how long it would take to cross the state both ways by traveling a certain number of miles per day. Point out the capital and the metropolis. Explain why the difference in the terms as applied to these cities; talk of the govenor, and of the population; have pupils point toward each; take imaginary journey to capital and describe the surface, streams crossed, crops, cities passed, by what railroads, or by what other conveyance. Speak of the appearance of the capitol building, of other state building if any; compare population with that of your nearest village; take similar journey to the metropolis.

Take journeys from the state capital and the metropolis to all parts of the state, describing and noting every point of interest as before. Continue this until all the important cities are considered and located; most cities have a nickname, give this to the children as they progress—it will aid them to remember the location; talk of canals and their locks; of coal or iron; (if found) of the tunnels; of rolling mills; of nail factories; of glass factories (how glass is made); of steamboats and of canal boats; of distilleries; of flouring mills; of pork packing and slaughter houses; of water power and manufactories; of paper mills; of foundries; of car shops; of railroad center; of grain warehouses; talk of schooners, propellers, brigs, flatboats, steamers, etc.; (if found within the state) of quarries; of light house; (if any) of harbor; (if any) of landing; of monuments; of oil wells and petroleum; of the oldest town or city; (both in state and the United States) slack water navigation; (if any) of salt and salt works; of penitentiaries

and why necessary; of state normal schools and why necessary; of colleges and where found.

Apply the above only as found in connection with the cities studied. Go slowly and carefully, filling in all the points of interest, facts of importance, etc.

Have a general talk about coal, iron, wool, hides, tallow, beef, pork, furnaces, peaches, apples, apricots, plums, quinces, pears, cherries, grapes and vineyards, corn, wheat, oats, the soil, forests, prairies, limestone, butter, cheese, ancient mounds, etc., as you think these topics necessary; the true teacher will develop the keenest interest in these things as his classes move along; what can be of more interest than the processes of the different manufactories? The making of cheese can be made the topic for one of the most interesting exercises; have a pupil construct a cheese press from a pill box, a lever, a weight, and some cotton to represent the curd; explain the use of the rennet (runnet.)

A very excellent scheme for summarizing the result of the observation is something similar to the following:

REVIEW and SUMMARY.

- Boundaries.
- Area.
- Population.
- Surface.
- Soil and Production.
- Climate.
- Minerals.
- Manufactures and Commerce.
- Internal Improvements.
- Education.
- Cities.
- Rivers.
- Lakes.
- Hills or Mountains.
- Objects of Interest.

After a thorough understanding of all the points outlined above it is well to have some pointed questions upon the map, and to have them fully answered; in order to illustrate this we have appended a few sample questions upon the State of Illinois; thus,

QUESTIONS ON THE MAP.

What state bounds Illinois on the north? What state on the east? What lake northeast? What river forms part of the eastern boundary? What state on the south? What river between Illinois and Kentucky? What river forms the western boundary? From what two states does it separate Illinois? What river drains the southeastern part of the state? Into what does the Wabash flow? Name three branches of the Wabash flowing from Illinois? Name three principal branches of the Mississippi flowing from Illinois. Name the chief branches of the Illinois. In what state does Fox River rise? Rock River? Name its chief branches. In what directions do the rivers of Illinois flow?

What cities on Lake Michigan? What cities on Vermillion River? What city at the mouth of the Ohio? What other cities on the Mississippi? What city opposite St. Louis? What cities east and southest of St. Louis? What city just above the mouth of the Missouri? What cities on or near the Sangamon? What city west of Springfield? What city south? What cities on or near the Illinois? On the Fox? What city on the Kankakee? On the Des Plaines? What city northwest of Peoria? On Rock River? What city on the Pecatonica? What city of Iowa opposite Rock Island? What city in the northwestern corner of the

state? On what river? What city of Iowa opposite the northern boundary?

Name all bodies of water forming boundaries. Where is the state widest? Where narrowest? How does the width of the northern part compare with that of the southern part? About how much of the eastern boundary is a straight line?

Beginning at the northwest corner of the state, take steamboat, pass down the Mississippi river and name towns (cities) upon each bank of the river. What rivers enter the Mississippi from Illinois? Large one from Missouri? In what counties are their mouths? Go down the Illinois and name cities upon either bank. In what counties are the state normal schools? What are the oldest towns? How many and what capitals has the state had?

SEARCH QUESTIONS.—1. What artificial harbor in the state? Breakwater? (Describe a breakwater.) 2. Where is the highest point of land? 3. How much above the level of the sea? 4. What and where is the Grand Prairie? 5. At what place in the Illinois river is the limit of navigation? 6. Where do the dams aid in the navigation of this river? (Explain how dams are made and how useful.) 7. What is the Kaskaskia sometimes called? 8. What is the greatest known depth of Lake Michigan? 9. The surface of this lake is how much above the sea level? 10. Is Lake Peoria a real lake? What is it? 11. From which direction do the prevailing winds of winter blow? Of summer? Which bring the most rain? 12. What is an alluvial deposit? Where found? A diluvial deposit? Where found? 13. Where is the soil *twenty-five* feet in

depth? Where and what is the American Bottom? 14. Where is the pecan found? Describe and list the different kinds of nuts. Make lists of the different trees found in this state. 15. How many counties front upon the Mississippi? How many upon the Ohio? What counties border upon Lake Michigan? 16. What is the coal area of Illinois? 17. Is the coal bituminous or anthracite? (See dictionary.) 18. Where does lead abound? Give plain talks about mining, smelting and the uses of lead. Tell of the shot tower and how shot is made. 19. Where are the salt springs of the state? Describe the process of making salt. 20. Where are there mineral springs of much medicinal value? 21. Where do we secure the white fish and the trout? The buffalo and the catfish? The bass? the perch? 22. What are the leading crops of Illinois? Make list of same. *One fourth of the entire area of Illinois was planted in corn in 1878.* 23. Where was the first railroad of Illinois? Tell about the rails. There are now over 9,000 miles of railroad in operation in the state. 24. What school officer of the state? Of the county? Officers of the township? Of the districts? Give term of office for each officer. 25. How many teachers in the state? 26. How many state senators? Who is yours? 27. How many representatives in the legislature? Is there one or more from your county? Who are they? 28. How often does the legislature meet? Where? 29. Who are the United States Senators from Illinois? How chosen? 30. How many Congressmen has Illinois? How many electoral votes? 31. Name the state officers and offices. 32. What courts have we? 33. Where is the State Reform School for Boys?

Explain what is meant by this. 34. Where is the Institution for the Feeble Minded? Explain its purpose. 35. How many and where are the state hospitals for the insane? 36. Where is the Soldiers' Orphans' Home? Note its benefits. The Eye and Ear Infirmary? The Asylum for the Blind and the Deaf and Dumb?

If you were deaf and dumb where might you be sent, and how? If a thief or a murderer? If simple? If blind? If crazy? 37. From what is the word Illinois derived? What race probably lived here before the Indian? 38. To what family of Indians did the tribes of Illinois Indians belong? Explain the use of *tribe* and *family*. 39. Who were the first explorers of Illinois? 40. Where and when was the first settlement made? Where is Starved Rock? Why so called? 41. Were there ever any slaves in Illinois? 42. Give the history of the Ft. Dearborn massacre. 43. Who was the first Governor? Who is now Governor? 44. What railroad now almost pays the current expenses of the state government? 45. How many counties in the state? Which one is the largest? The smallest? 46. Where is Lincoln buried? Describe the monument. 47. How is Chicago supplied with water? Make drawings to illustrate this. 47. Chicago is the greatest —— market in the world. 48. How many acres do the Union Stock Yards cover? Describe them and tell their use. 49. Tell about the great fire of 1871 at Chicago. 50. Where is the Illinois Industrial University? 51. How is the grain lifted from the cars to the lake steamers? Explain fully. 52. What is a tile, and of what use is it? How made? 53. Where does coal

"crop out?" 54. Give different depths of known mines. 55. What is the nickname for Illinois? 56. Where is Lover's Leap? 57. Illinois is supposed to have been the bed of an immense ———? 58. What county offices? Township? 59. What is the county legislature? 60. What township officer performs the marriage ceremony?

Such a topic list as this is excellent for the study of a state:

STUDY OF ILLINOIS.

1. Position—Latitude, longitude, outline, (regular or irregular,) extent, (east and west) in miles, area (compare in size with surrounding states,) coast waters bordering it.

2. Surface—Level, undulating, hilly.

3. Boundaries (exact constitutional.)

4. Rivers—Mississippi, Ohio, Wabash, Rock, Illinois, Kaskaskia, Sangamon.

5. Lakes—Michigan, Peoria.

6. Climate—Modified, how?

7. Natural Advantages—On the surface, in the earth, on the water.

8. Occupations—Agricultural, mining, manufacture, transportation.

9. Internal Improvements—Railroads (5), canals, State house, penitentiaries, colleges, asylums, etc.

10. Name and locate ten prominent cities.

11. Education—State superintendent, county superintendent, school trustees, school directors, teachers.

12. History of the capital, with dates of removal.

13. Number of counties, boundaries of this.

For a blackboard form, the following is brief, and also convenient for reviews:—

Blackboard Form.

Illinois. "Sucker State" 1818.

- Boundary.
- Area, (56,650.)
- Population, (3,077,871.)
- Mississippi.
 - Rock.
 - Illinois—Sangamon.
 - Kaskaskia.
 - Ohio—Wabash.
- Lakes.
 - Michigan.
 - Peoria.
- Cities.
 - Chicago.
 - Peoria.
 - Bloomington.
 - Quincy.
 - Alton.
 - Joliet.
 - SPRINGFIELD.
 - Centralia.
 - Etc., etc.
- Vegetable productions.
- Mineral productions.
- Objects of interest.
- Draw map.

JANUARY—NATURAL DIVISIONS OF LAND AND WATER.

Select a well-known hill in the neighborhood; point out base or foot, sides, top or summit, slope, etc., find a picture of a mountain, and have same points selected by the pupils.

Draw profile of a mountain upon the board; talk of its height, may be covered with snow in midsummer, even all the year; why? No trees upon the top; lower down small shrubs; lower still, trees and forests; farms from the base a part of the way up the sides; the view from the summit; clouds below it, rain falling in the valley, sun-light at the top, etc. Hills found in ridges; mountains follow the same order; a ridge of mountains called a range or chain; find such upon the maps, and agree upon a symbol for a single mountain, for a range:—A journey across the mountains; a pass or gap; a tunnel; rivers rise in mountains; the winds carry the clouds against them and the rains fall; why? Define mountain, pass, summit, base; a table land described.

Show picture of an active volcano; contents; the crater; an eruption and its consequences; an extinct volcano; find the two different kinds upon the maps. Define volcano, lava, crater.

Point out a dale or little plain and develop the idea of a large plain or valley; some plains not level; a rolling country a plain; prairies; valleys, etc. Define plain, prairie, desert, valley, vale, dale.

For peninsula, cape, bay, island, isthmus, strait, delta, river, pond, lake, the shore, channel, sound, gulf, sea, coast, archipelagoes, take a bucket of water (if a stream is not at hand) and *throw* it upon the floor; by one or two trials these objects will be found, formed from the water and dry floor; have pupils to find them, point to them and *tell what they see, then secure the definition while the pupil looks at object.*

There is usually a stream at or near the school-house; use this to make pupils familiar with a river, rivulet or

rill, brook, course of river, source of river, bank of river, bed of river, mouth of river, head of river, channel of river, basin or valley of river, rapids, cascade, cataract, spring. Speak of freshets and inundations; of steamboats and commerce.

Treat the term lake in a similar manner, by starting with a well-known pond in the vicinity; a very small pond is usually a puddle.

TERMS FOR DEFINITION.

What is a

Hill?
Mountain?
Mountain range?
Mountain gap?
Table land?
Volcano?
Dale?
Vale or valley?
Plain?
Prairie?
Desert?
Oasis?
Forest?
Wood?
Swamp?
Everglade?
Spring?
Rivulet or rill?
Brook?
River?
River head?
Bed of a river?
Channel of a river?
Basin of a river?
Rapids?
Ripple?
Cataract?
Cascade?
Delta?
Pond?
Lake?
Shore of lake?
Harbor?
Strait?
Breakwater?
Channel?
Sound?
Gulf or bay?
Sea?
Sea coast?
Ocean?
Archipelago?
Island?

Course of river?
Source of river?
Mouth of river?
Bank of river?
Left bank of river?
Village or city?
Railroad?
Town?
Township?
Capital?
Capitol?
Metropolis?
Seaport?
Peninsula?
Isthmus?
Cape?
Promontory?
Turnpike?
Canal?
Races of men? { White, Black, Red, Yellow, Brown }
Earth?
Continent?

NOTES AND METHODS.—1. Be sure that the pupil has the true idea of the thing represented by the term before permitting him to attempt the definition of it; a correct idea of a cape or an island should precede the definition.

2. Mathematical definitions should not be permitted, but the *names* of the lines and the circles upon maps should be early learned.

3. A good set of outline maps are almost indispensable to the successful teaching of local geography. When in use for a time the maps should be spread upon the floor where the pupil may have a "bird's-eye view" of the country considered; it should be spread upon sheets of newspaper to avoid soiling it, and to correspond with the points of the compass; when their use is understood they should be slowly raised to the wall during a talk in effect that the wall is but the floor standing on edge; that the map can stand upon *its* edge without changing the slant of the land or without spilling the water from the ocean or some river with which the pupils are acquainted.

4. When placed upon the wall the maps should be easily seen from any point in the room, and have the right hand side toward the east.

5. A pencil eraser placed upon the end of the pointer will protect the maps used. While the pointer is being used some brief and lively description should be given of the place or country under consideration.

LOCAL GEOGRAPHY.

PREPARATION.—The teacher should pronounce the names of places and point to their location while the pupils pronounce the same in concert; a pupil should then step to the map with pointer in hand and pronounce same as he points out the places; he should then point to same places while the class pronounce them; then the several individuals should in turn pronounce same list and point them out. Have the pupil to name and locate (with pointer) the objects in exact order with as little assistance as possible. The words "wrong" or "omitted" should call a halt at every mistake.

THE LESSON.—Have pupils give location in words while pointing. See *models* for location. Adopt some brief model as it will save time.

Divide the class into two divisions and have a pupil of one division to name a place and teacher designate a pupil from the other division to point out and answer the question. Some note of the failures should be made, as this encourages good attention.

Attention is secured by the lively and thoughtful methods of the teacher, not by the asking for it.

THE TEST.—The true test of scholarship is by

writing; the student thus has time to consider his answers and will put them into his best form.

Once a week, at least, the teacher should prepare about five questions upon the work, remove the maps, and require pupils to write upon them as in a regular examination; this writing may be upon slates, or upon paper; the latter is the better way since the paper may be filed for reference; this work should be carefully graded as suggested under the head of "Uniform Markings" in this book. The mistakes of each pupil should be carefully pointed out until he understands what is wanted.

MODELS FOR THE RECITATION.

Political Divisions.—The United States is bounded on the north by British America, on the east by the Atlantic ocean, on the south by the Gulf of Mexico and Mexico, and on the west by the Pacific ocean. The capital is *Washington.*

Peninsulas.—Florida is the southeastern part of the United States. It extends between the Gulf of Mexico and the Atlantic ocean.

Capes.—Cape Farewell is the southern point of Greenland, and extends into the Atlantic ocean.

Mountains.—The Alleghany mountains are in the eastern part of the United States. They extend from northeast to southwest, parallel with the Atlantic coast.

Mount Blanc is the highest peak of the Alps, and is situated in the northwestern part of Sardinia.

Island.—Sicily is in the Mediterranean sea, south of Italy.

Seas, Gulfs, Bays, Sounds, and Inlets.—The White

sea is a portion of the Arctic ocean, and extends into the northern part of Russia.

Straits and Channels.—The Straits of Bellisle *separate* Labrador and Newfoundland, and *connect* the Gulf of St. Lawrence with the Atlantic ocean.

Lakes.—Lake Champlain is between the northern part of New York and Vermont. Its outlet is the Sorel river, which flows into the River St. Lawrence.

Rivers.—The Potomac river rises in the northern part of Virginia, and flows southeast, between Maryland and Virginia, into the Chesapeake Bay.

Cities.—Cincinnati is situated in the southwestern part of Ohio, on the right bank of the Ohio river.

E. E. White.

THE UNITED STATES.

Divisions { THREE GREAT SECTIONS { Mississippi Valley, Atlantic Slope, Pacific Slope
TWO SMALL SECTIONS { Lake Basin, Texas Slope

Make journeys through each in different directions noting features outlined under the head of "Home Geography."

Mississippi Valley.—Northern part a vast plain; prairies; western settlements; Indians; great sterile plateau near the Rocky mountains; animals; rivers rise in the Rocky and Alleghany mountains.

Central part narrow and more broken; banks of rivers usually low, and cities built upon the bluffs; why? climate; productions.

Southern part low and marshy; fertile valleys; productions; fruits; climate hot—yellow fever; animals.

Atlantic Slope.—Northern section hilly; rivers and lakes *clear*; why? soil not so fertile as that of the Mississippi Valley; less wheat and corn; winters; pine forests; animals.

Central portion narrow; low and sandy; productions; animals.

Southern portion swampy—animals; productions.

Pacific Slope.—Wide belt of mountains separate it from the Mississippi Valley; little rain; Indians; fertile near Pacific but sterile near the mountains; gold mines; Chinese; grizzly bears; other animals; quicksilver and silver.

Lake Basin.—Mormons; wooded; plain partly fertile, and partly sterile; animals.

Texas Slope.—Same as southern Mississippi Valley.

Take numerous imaginary journeys, tracing course upon the map and locating every place mentioned.

STATES AND CAPITALS LEARNED.

Have pupils arrange the states and capitals into two columns as learned; use the outline maps freely; have every thing pointed out by the pupils themselves.

- ATLANTIC.
 - *North.*
 - Maine.
 - New Hampshire.
 - Vermont.
 - Massachusetts.
 - Rhode Island.
 - Connecticut.
 - *Middle.*
 - New York.
 - New Jersey.
 - Pennsylvania.
 - Delaware.
 - Maryland.

- UNITED STATES
 - CENTRAL.
 - *South.*
 - Virginia.
 - North Carolina.
 - South Carolina.
 - Georgia.
 - Florida.
 - *South* (*East.*)
 - West Virginia.
 - Kentucky.
 - Tennessee.
 - Alabama.
 - Mississippi.
 - *North* (*East.*)
 - Wisconsin.
 - Michigan.
 - Ohio.
 - Indiana.
 - Illinois.
 - *South* (*West.*)
 - Arkansas.
 - Louisiana.
 - *North* (*West.*)
 - Minnesota.
 - Iowa.
 - Missouri.
 - STATES OF THE PLAINS.
 - Nebraska.
 - Kansas.
 - Texas.
 - THE HIGHLAND. — Colorado.
 - THE LAKE BASIN. — Nevada.
 - PACIFIC STATES.
 - Oregon.
 - California.
 - THE TERRITORIES.
 - Washington.
 - Idaho.
 - Montana.
 - Dakota.
 - Wyoming.
 - Utah.
 - New Mexico.

	Arizona.
	Indian.
	Alaska.
Special Territories	National Park
	Dist. of Columbia

Nicknames.—It is well to learn the most prominent nicknames of the States; after several have been learned, ask such questions as "Who are Suckers?" Pupils raise hands. "Who are Hoosiers?" "Who are Buckeyes?" "Who are Corncrackers?" "How many Pukes?"

Peninsulas.—Florida and Michigan. Define peninsula.

Oceans, Gulfs, Bays.—Atlantic, Pacific, Mexico, Passamaquoddy, Penobscot, Massachusetts, Narragansett, Delaware, Chesapeake, Mobile, Galveston, San Francisco.

Locate each in turn as in model. Define ocean, gulf, bay.

Lakes.—Moosehead, Champlain, Ontario, Erie, St. Clair, Huron, Michigan, Superior, Lake of the Woods, Itasca, Great Salt Lake, Lake Okeechobee, Ponchartrain.

Insert any items of information of an interesting character in connection with the study of each lake. Define lake.

Sounds and Straits.—Florida, Pamlico, Albemarle, Long Island, Golden Gate.

Define sound, strait, channel.

Mountains.—White, *Mt. Washington*, Green, Catskill, Blue Ridge, Allegheny, Cumberland, Rocky, Sierra Nevada, Coast Range, Cascade Range.

Define mountain, volcano, mountain range.

FEBRUARY—CITIES, LAKES, ETC.—UNITED STATES.

In the study of the home state it is well to select some important thing connected with each city, thus: When writing the list the pupil might append penitentiary to ———, capital to ———, whiskey to ———, asylums to ———, bridge to ———, lake to ———, waterworks to ———, &c.

Each individual state should be outlined as in the brace form given for Illinois; this should be done by the pupils as they pursue the study of the state, and should contain the same names found in these pages with such additions as the teacher may make.

When these outlines are built up in this shape they are in excellent form for written reviews and should be so used *at every recitation.* This may be nicely done by sending class to the board with the direction that "Mary may write form for Maine, Lucy for New York, John for Deleware, Sarah for Massachusetts," &c. These forms should be written in about one minute; they should be inspected and all errors *corrected.*

St. John's.
St. Croix.
Penobscot.
Kennebec.
Androscoggin.
Merrimac.
Connecticut.
Thames.
Housatonic.
Hudson.
Mohawk.
Delaware.
Lehigh.

RIVER SYSTEM.

- ATLANTIC SYSTEM.
 - *Schuylkill.*
 - Susquehanna.
 - *West Branch.*
 - *Juniata.*
 - Potomac.
 - James.
 - Roanoake.
 - *Neuse.*
 - *Cape Fear.*
 - *Great Pedee.*
 - Santee.
 - Savannah.
 - Altamaha.
 - St. John.
- GULF SYSTEM.
 - Appalachicola.
 - Flint.
 - Chattahooche.
 - Mobile.
 - Alabama.
 - *Tombigbee.*
 - *Pearl.*
 - Mississippi.
 - *Sabine.*
 - *Trinity.*
 - Brazos.
 - Colorado.
 - Rio Grande.
- Mississippi.
 - *Yazoo.*
 - Ohio.
 - Tennessee.
 - Cumberland.
 - Green.
 - Licking.
 - Big Sandy.
 - Monongahela.
 - Allegheny.
 - Muskingum.

Mississippi System.	Scioto.
	Wabash.
	Illinois.
	Rock.
	Wisconsin.
	Minnesota.
	Iowa.
	Des Moines.
	Missouri.
	Yellowstone.
	Big Horn.
	Platte.
	Kansas.
	Arkansas.
	Red.
Pacific System.	Colorado.
	Gila.
	Sacramento.
	Columbia.
	Lewis.
	Clarke's.
Lake System.	Niagara.
	St. Lawrence.
	Genessee.
	St. Clair.
	Detroit.
	St. Mary.

Islands.	Grand Menan.
	Mt. Desert.
	Nantucket.
	Martha's Vineyard.
	Long Island.
	Key West.
	Isle Royal.
	Moosehead.
	Winnipiseogee.
	Memphremagog.

Capes.	Ann.
	Cod.
	May.
	Henlopen.
	Charles.
	Henry.
	Hatteras.
	Lookout.
	Fear.
	Sable.

LAKES.
- *Connecticut.*
- Champlain.
- Oneida.
- Ontario.
- Erie.
- *St. Clair.*
- Huron.
- Michigan.
- Superior.
- Lake of the Woods.
- Pepin.
- Itasca.
- Great Salt Lake.
- *Ponchertrain.*
- *Borgne.*
- *Okeechobee.*
- Mendocino.
- Flattery.

For oral class, select capital and one or two important cities; for text-book class, select more than are here given if thought best.

NORTH ATLANTIC.

Me.
- Augusta.
- *Portland.*
- *Eastport.*
- *Bangor.*
- *Lewiston.*
- *Biddeford.*

N. H.
- Concord.
- Manchester.
- *Portsmouth.*
- *Dover.*
- *Nashua.*

Vt.
- Montpelier.
- Burlington.
- *Rutland.*
- *Bennington.*

- BOSTON.
- Lowell.
- Salem.
- Lynn.

- Mass.
 - Cambridge.
 - Plymouth.
 - New Bedford.
 - Worcester.
 - Springfield.
- R. I.
 - PROVIDENCE.
 - Newport.
- Ct.
 - Hartford.
 - NEW HAVEN.
 - Bridgeport.
 - Stonington.
 - Norwich.
- N. Y.
 - Albany.
 - New York.
 - *Brooklyn.*
 - *Sing Sing.*
 - *West Point.*
 - *Poughkeepsie.*
 - *Hudson.*
 - *Troy.*
 - *Cohoes.*
 - *Schenectady.*
 - Saratoga.
 - *Ticonderoga.*
 - *Plattsburg.*
 - *Ogdensburg.*
 - *Oswego.*
 - *Utica.*
 - *Rome.*
 - *Syracuse.*
 - *Ithaca.*
 - *Elmira.*
 - Rochester.
 - *Lockport.*
 - Buffalo.
 - Chautauqua.
- N. J.
 - Trenton.
 - Newark.
 - Jersey City.
 - Paterson.
 - Long Branch.

- MIDDLE ATLANTIC.
 - Morristown.
 - Camden.
 - Princeton.
 - Pa.
 - Harrisburg.
 - Philadelphia.
 - *Reading.*
 - *Wilkesbarre.*
 - *Scranton.*
 - *Lancaster.*
 - *York.*
 - *Gettysburg.*
 - *Williamsport.*
 - Pittsburg.
 - *Erie.*
 - Del.
 - Dover.
 - Wilmington.
 - Md.
 - Annapolis.
 - Baltimore.
 - *Havre de Grace.*
 - *Frederick.*
 - *Cumberland.*
- SOUTH ATLANTIC.
 - Va.
 - RICHMOND.
 - *Norfolk.*
 - *Yorktown.*
 - *Alexandria.*
 - *Petersburg.*
 - *Lynchburg.*
 - N. C.
 - Raleigh.
 - Wilmington.
 - *New Berne.*
 - *Fayettesville.*
 - S. C.
 - Columbia.
 - Charleston.
 - Ga.
 - ATLANTA.
 - Savannah.
 - *Augusta.*
 - *Macon.*
 - *Dalton.*

CITIES OF THE UNITED STATES.

S. E. CENTRAL.

- Fla.: Talahassee. Jacksonville. Key West. Pensacola. *St. Augustine.*
- Ala.: Montgomery. Mobile. *Huntsville.* *Selma.*
- Miss.: Jackson. Vicksburg. *Natchez.* *Columbus.*
- Tenn.: NASHVILLE. *Memphis.* *Chattanooga.* *Knoxville.*
- Ky.: Frankfort. Louisville. *Newport.* *Covington.* *Lexington.*
- W. Va.: Charleston. Wheeling. *Parkersburg.* *Harper's Ferry.*

- O.: Columbus. Cincinnati. Portsmouth. Marietta. Zanesville. Cleveland. Sandusky. Toledo. Dayton.
- Ind.: INDIANAPOLIS. Evansville. *New Albany.* *Terre Haute.*

- N. E. Central.
 - Ind.
 - *Fort Wayne.*
 - *La Fayette.*
 - Ill.
 - Springfield.
 - Chicago.
 - Cairo.
 - *Alton.*
 - *Jacksonville.*
 - *Quincy.*
 - *Peoria.*
 - *Bloomington.*
 - *Galesburg.*
 - *Joliet.*
 - *Rockford.*
 - Mich.
 - Lansing.
 - Detroit.
 - *Ann Arbor.*
 - *Jackson.*
 - *Kalamazoo.*
 - Wis.
 - Madison.
 - Milwaukee.
 - *Janesville.*
 - *Racine.*
 - *Fond du Lac.*
 - *La Crosse.*
- N. W. Central.
 - Min.
 - St. Paul.
 - Minneapolis.
 - *Winona.*
 - Iowa.
 - Des Moines.
 - Dubuque.
 - *Davenport.*
 - *Muscatine.*
 - *Burlington.*
 - *Keokuk.*
 - *Council Bluffs.*
 - Mo.
 - Jefferson.
 - St. Louis.
 - *Hannibal.*
 - *St. Joseph.*
 - *Kansas City.*

- States of the Plains.
 - Neb.
 - Lincoln.
 - Omaha.
 - Kan.
 - Topeka
 - Leavenworth.
 - *Atchison.*
 - *Lawrence.*
 - *Fort Scott.*
 - Texas.
 - Austin.
 - Galveston.
 - *Corpus Christi.*
 - *Indianola.*
 - *Dallas.*
 - *Houston.*
- S. W. Central.
 - Ark.
 - Little Rock.
 - *Fort Smith.*
 - *Hot Springs.*
 - *Texarkana.*
 - La.
 - Baton Rouge.
 - New Orleans.
 - *Shreveport.*

Rocky Mount'n State, Col.—Denver.

- Basin State.
 - Nev.
 - Carson.
 - Virginia.
- Pacific States.
 - Cal.
 - Sacramento.
 - San Francisco.
 - *Stockton.*
 - *Los Angelos.*
 - Ore.
 - Salem.
 - Portland.
- Territories.
 - N. M. — Santa Fe.
 - A. T. — Prescott.
 - U. T. — Salt Lake.
 - Wy. T. — Cheyenne.
 - W. T. — Olympia.
 - I. T. — Boise City.
 - M. T. — Helena.
 - D. T.
 - Yankton.
 - Pembina.

Ind. T. — Tallequah.
Alaska. — Sitka.
D. C. — Georgetown.
National Park.—

The geography here outlined may be left at the discretion of the teacher as to limits. Many teachers will be able to accomplish all of the work here outlined ere time fixed in the outline expires; to such we would say, do not let the interest of the class diminish by going over work that has been well done, but pass to other *new* work while keeping up the reviews.

NORTH AMERICA.

Oral Description. { Atlantic Slope. Central Plain. Pacific Slope.

Make this description as lively and as interesting as possible. Talk of the general direction of the rivers of each slope; of the tides at different points of the coast line; of the polar bear; of the Esquimau; of the seal; the walrus; the elk; the deer and antelope; of southern and northern birds; of wooded parts; of prairie; of swamps; of severe snows; of tornadoes; of fur traders; of the appearance of the oceans; of Kane's Arctic explorations; of cotton, sugar, tropical fruits, spices, mahogany, logwood, gold, silver, quick-silver; of a bird's-eye view of the great lakes, etc.

All the items needed, may be gleaned from geographies, found within the school-house. By reaching all the authors at hand the teacher will find plenty of material to illustrate all the points embraced in the above.

DIVISIONS.
AND
CITIES OF
BRITISH AMERICA.

(Ottawa—Capital.)

(*Canada embraces all of British America except a part of Labrador.*)

- Quebec. { Quebec. / Montreal.
- Ontario. { Toronto. / Hamilton.
- Manitoba—Winnipeg.
- Assiniboin—Regina.
- British Columbia—Victoria.
- *Saskatchewan—Battleford.*
- *Alberta———*
- *Athabasca——*
- *Keewatin——*
- *Labrador.*
- *North-East Territory——*
- *Baffin Land——*
- *North-West Territory.*
- New Brunswick—Fredericton.
- New Foundland—St. John.
- Nova Scotia—Halifax.
- Prince Edward Island—Charlottetown.

- Rivers. { Yukon. / Mackenzie. / *Great Fish.* / *Nelson.* / *Ottawa.* / *Frazer.*
- Straits. { Davis. / Hudson. / Behring. / Belle Isle. / Florida.
- Hudson.
- Baffin.

North America (continued.)

- Bays.
 - St. Lawrence.
 - Mexico.
 - James.
 - California.
- Lakes.
 - Winnipeg.
 - Great Slave.
 - Great Bear.
 - *Georgian Bay.*
 - *Nicaragua.*
- Islands.
 - Iceland.
 - Greenland.
 - Newfoundland.
 - Prince Edward.
 - Bahamas.
 - West Indies.
 - Queen Charlotte.
- Cities.
 - Vera Cruz.
 - Tampico.
 - Matamoras.
 - Monteray.
 - Mexico.
 - Acapulco.
 - Gautemala.
 - Havana.

The teacher should add to the preceeding list such places as he deems important. Only those of particular commercial or historical importance should be selected. As many of the preceding as are to be studied, should be placed upon the board for topical study and recitation. Two or three good questions should be placed upon the board, and the pupils required to write out the complete answers.

SOUTH AMERICA.

Give simply a good general view of South America. Give good oral view of the Andes and the valleys lying between the parallel ranges; the chain from 30 to 400 miles in width; volcanoes numerous; earthquakes frequent; cities sometimes destroyed.

Pacific Slope.—Narrow; small amount of rain.

Atlantic Slope.—Wide fertile plain; rivers spread out into immense inland seas; the Llanos; (wet and dry season,) the Silvas; Pampas; the Amazon and its wonderful valley; Brazilian forests; the climate; the productions; herds of cattle and horses; the jaguar; the llama; vampire bat; Surinam toad; hides and horns; climbing vines; condor; huge alligators and immense water snakes; the *boa constrictor*; monkeys; beautiful birds, gold, silver; landing of Columbus in 1498; conconquest of Peru; Panos Indian and his wife; mountain travel; guano; the native blow-gun; the lake dwellers on the Orinoco; primitive bridges over streams in the Andes; cocoa; Indian rubber; cinchona bark; (here tell the story of the discovery of its qualities;) American ostrich; the Indian and his lasso, etc.

Arrange the countries and capitals of South America into two corresponding columns and while doing so proceed slowly, giving lively descriptions of the countries and capitals; thus, tell them of Equador and its perpetual spring; why? Situated *two miles* above the sea level; eleven snow capped mountains in view; on the east side of the volcano of Pichinea; only city under the equator, etc.

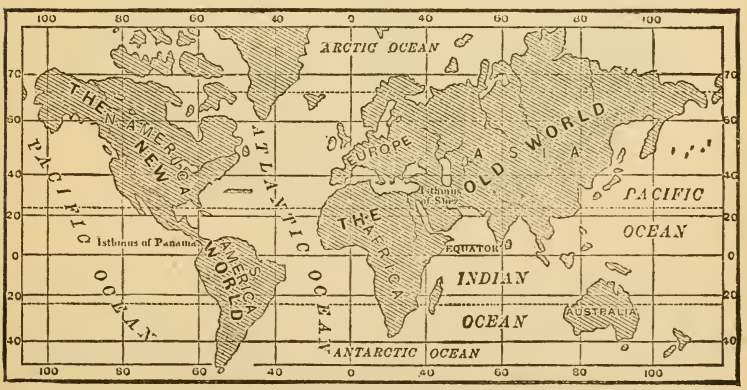
Note some of the large rivers only; tell of the Amazon and the width of the mouth; it is called the

"boat destroyer," why? Has the widest mouth of anything in the world—180 miles in width—could swallow Indiana! Its waters do not commingle with those of the ocean for 250 miles.

Make special preparation upon each topic by reading all that can be secured from the geographies, using the gazetteer and the encyclopedia freely, if at hand. Every teacher should own several good geographies and try in some manner to have access to the gazetteer and the encyclopedia. Where the latter cannot be found in the district he may make a note of places that he desires to investigate, read a couple of hours when he goes to the village or city and has access to the library. By a little effort he may soon become familiar with facts and curiosities of a place or a country.

THE WORLD.

At this point the teacher should explain the names and the uses of circles placed upon the maps, the names of seasons, of the zones, of the climate, etc.



MERCATOR'S MAP.

Begin with the season at home and present a vivid picture of an Arctic or an Antarctic climate, with its long day or its long night; when the long day is at one pole the long night is at the other; exhibit a good picture of the Arctic winter and talk of the Esquimaux, the



ZONES OF ANIMAL LIFE.

polar bear, etc; of the stunted vegetation, and of the animals as compared with ours. Talk of the rains of the torrid zone, its luxuriant vegetation, the dry season and the scorched plains. Speak of the ferocious

animals, the large plants and the lazy inhabitants. *See picture of plant and animal zones.*

Have pupils tell in which zone each of the countries of North and South America are found (see map); illustrate how the sun's heat diminishes as we pass from



ZONES OF PLANT LIFE.

the equator toward the poles; how vegetation depends upon warmth for its vigor and its development; give careful explanations of latitude and longitude, and have pupils understand how to find the latitude and the longitude of a place.

The eastern hemisphere contains the eastern continent; the western hemisphere contains the western continent.

- CONTINENTS. (Define).
 - WESTERN.
 - North America.
 - South America.
 - EASTERN.
 - Europe.
 - Asia.
 - Africa.
 - Oceanica.

One ocean; divided into five parts; why?

- OCEANS. (Define.)
 - Atlantic.
 - Pacific.
 - Indian.
 - Arctic.
 - Antarctic.

- Great and Small Circles.
 - Circles. (Define.)
 - *Arctic.*
 - Antarctic.
 - (Define.)
 - Tropics. (Define.)
 - CANCER.
 - CAPRICORN.
 - (Define.)
 - Gt. Circle—**EQUATOR.** (Define.)

Draw figure representing the above circles and point out the zones; have pupils make same figure and write the names of the zones within the spaces.

- THE FIVE ZONES. (Bound each.)
 - North. / South. — Frigid.
 - North. / South. — Temperate.
 - North. / South. — Torrid.

Have pupils draw diagram of zones and write the names of animals found, within each; at other times write names of fruits found, within them; at another,

the names of trees and plants; zones and widths in degrees (width of degree.)

Explain the different states of society and write the terms used as you progress; thus:

STATE OF SOCIETY. { Savage. Barbarous. Semi-civilized. Civilized.

Have pupils know *where* these societies may be found.

Review all the drawings that have been considered up to this point.

THE OLD WORLD.

Apply the plan of study to each of the grand divisions in order as suggested in the study of South America.

Make numerous imaginary voyages to different foreign parts and have pupils to lade the vessels. (In imagination.)

This may be done by fixing the relative position of the ports upon the board, and by having pupils write names of exports near the port under question. By a little careful attention the teacher may direct the pupil so that he will soon have a fair knowledge of the climate of a country by its exports alone.

A very effective manner of doing this, is about as follows:

Fix ports in their relative position upon the floor, (use chalk,) cut blocks of paper and distribute to pupils; have them lade the vessel by writing such articles of export as they may find shipped, upon the paper, and depositing it upon the name of the city considered; it

will add to the interest to take a small box or dish to represent the vessel, and when loaded have a boy *haul it across the ocean to a destined port;* during this operation have pupils follow and point out islands, capes, etc. Develop interesting information at every step.

Be filled with interesting facts yourself, and you will fill your classes with enthusiasm at the first lesson.

It will be a beneficial exercise to give this to your Advanced Division. Try taking the class into the yard and have them consider the lot as a map upon Mercator's Projection (see map); have pupils take sharpened sticks, and fix them at the angles of the continents, then pass a long piece of twine around each, making a complete outline of the world upon this plan; sharpen sticks, split them at the top, insert white paper in the openings, labeled as a certain cape, city, river, etc. From these data, take voyages from one country to another; from city to city, traveling by means of rail, or by the steamer; from island to island; always talking of commerce, and curiosities in animal or plant life. Finally, show them a map containing location of minerals; have the names of minerals fixed in same manner. *Try it!*

The selection of places to be located in the world is left to the good judgment of the teacher.

When the above exercise is once understood, transfer the lesson to the real map.

TEXT-BOOK GEOGRAPHY—B. CLASS.

Book—In hands of pupil.

Object—Definite work in the geography of the United States. A short study in the geography of North America.

Time—About two years.
Grade—Fourth Reader.

OCTOBER.

See "Oral Geography," outline for Illinois for suggestions, not given here. The model given for Illinois is applicable to any state; see outline for next month.

Illinois—Boundary, Area (56,650). Mississippi River (Define River), Rock, Illinois, (Sangamon), Kaskaskia, Ohio (Wabash). Lake Michigan (Define Lake), Peoria. Chicago (Define City), Springfield, Peoria, Bloomington, Quincy, Alton, Joliet, Centralia, Cairo, Galena. Vegetable Productions—Animal Productions—Mineral Productions—(Define Vegetable, Animal, and Mineral).

NOTES.—Arrange the above list of topics in the Brace Form, now so familiar. Use this book in the study of each State and follow the topic lists in the recitation. Pupils should build up the Brace Form on their slates (or what is better, in their note books), and be required to reproduce them on the board. Talk about the length and breadth of Illinois; its navigable rivers; lake coast; why favorable for commerce; its imports and exports; railroads; coal and lead mines; its principal canal (define canal); its two Normal Schools; State University; penitentiary; bridge at East St. Louis; shot-tower and crib at Chicago. Let the teacher direct pupils how to find these and many more items of interest. Make good use of all the special geographies of Illinois. Read all that can be found concerning a place while studying it.

Models for the Class Recitation. Rivers: The Illinois river rises in the northeast part of the State, flows southwest, and empties into the Mississippi river. Cities:

Chicago, the metropolis, is situated in the northeast part of Illinois at the head of Lake Michigan. Lakes: Lake Peoria is an expansion of the Illinois river, just above the city of the same name.

Define the following terms at the proper time in the study of the above: Valley, plain, prairie, forest, rivulet or rill, brook, course of a river, source of a river, mouth of a river, bank of a river, right bank, left bank, bed of a river, river basin, pond, lake, lake shore, harbor, railroad, village, town, capital, capitol, metropolis, political division, map.

Whenever you have completed the October work, take up the November outline and study it as far as you can. The division of this book by months does not indicate that this is the limit of the work at all, but *simply the limit of the examination for the month.*

The thoughtful teacher will have his classes get the idea expressed by each term in geography before he requires a definition. Do not make the sad mistake of beginning at the first page of the book and spending several weeks on definitions, but commence at once with the map studies and develop the idea as you find need for the terms. Definitions are meaningless, unless the pupil has a clear idea of their meaning.

NOVEMBER—NORTH ATLANTIC STATES.

(NEW ENGLAND.)—Arrange the following geographical objects, by States, as suggested for Illinois: Rivers—St. Croix, Penobscot, Kennebec, Androscoggin, Merrimac, Connecticut, Thames. Lakes—Grand, Moosehead, Chesuncook, Winnipeseogee, Memphremagog, Champlain. Bays—Passamaquoddy, Penobscot, Casco, Massa-

chusetts, Cape Cod, Buzzard's, Narragansett. Mountains —White and Green. Mountain Peaks—Mt. Katahdin, Saddle Back, Mt. Washington, Mt. Mansfield, Killington Peak, Mt. Tom, Mt. Holyoke. Islands—Grand Menan, Mt. Desert, Nantucket, Martha's Vineyard. Capes—Ann, Cod. Cities—Portland, Augusta, Bangor, Manchester, Concord, Nashua, Portsmouth; Burlington, Montpelier, Rutland; Boston (capital), Cambridge, Lynn, Salem, Lowell, Plymouth, Worcester, Springfield; Providence, Newport (capitals); New Haven, Hartford, New London, Bridgeport, Norwich. Note: The metropolis is placed first, the capital second, in the list of cities.

Define each new term introduced, and review others daily until learned.

Do not memorize areas, except for a very few of the most important states.

Show the child how to arrange each state under the brace. Suppose we are to study Maine; the child should make up his outline on the slate as he studies his lesson, thus:

- Boundary.
- Area (comparative).
- Rivers.
 - St. John's.
 - St. Croix.
 - Penobscot.
 - Kennebec.
 - Androscoggin.
- Lakes.
 - Grand.
 - Moosehead.
 - Chesuncook.

Maine 1820.
- Bays: Passamaquoddy. Penobscot. Casco.
- Mts.: Katahdin. Saddle Back.
- Islands: Grand Menan. Mt. Desert.
- Cities: Portland. AUGUSTA. Bangor.
- Vegetable. Animal. Mineral. — Products for New England (as a whole).
- Objects of Interest.

The teacher should place the outlines on the board for a few lessons and spend the recitation in showing the pupil how to study his lesson (topically), and how to recite it. Have numerous tracing lessons and imaginary voyages. Make the lesson and the study lively by talks with pupils about history connected with places, about colleges, scenery, tunnels, water power, derivation of names, nicknames, etc. Associate something important with everything learned.

When you have completed the New England (Eastern) States, begin at once on the December work. *The division into month's work is simply for the purpose of review and examination.*

DECEMBER—MIDDLE ATLANTIC STATES.

RIVERS.—Hudson, Mohawk, St. Lawrence, Oswego, Genesee, Niagara, Delaware, Schuylkill and Lehigh,

Susquehanna, Juniata and Potomac, Ohio, Alleghany, Monongahela.

CITIES.—New York, Brooklyn, Albany, West Point, Troy, Saratoga, Utica, Syracuse, Auburn, Rochester, Buffalo, Elmira, Trenton, Jersey City, Newark, Princeton, Camden, Philadelphia, Harrisburg, Reading, Pittsburg, Erie, Dover, Wilmington, Baltimore, Annapolis, Washington.

BAYS.—New York, Long Island Sound, Delaware, Chesapeake.

MOUNTAINS.—Adirondac, Highlands, Catskill, Allegheny, Mt. Marcy.

LAKES.—Erie, Ontario, Champlain, Oneida, Cayuga, Seneca, Chautauqua, and Otsego.

CAPES.—May, Henlopen.

As soon as you complete the outline for December, begin with that for January. It will be all the better if you can do more than is here outlined.

JANUARY—SOUTH ATLANTIC, SOUTH CENTRAL AND NORTH CENTRAL STATES.

RIVERS.—James, Roanoke, Neuse, Cape Fear, Santee, Savannah, Altamaha, St. Mary's, St. John's, Appalachicola, (Flint and Chattahoochee), Mobile, (Alabama and Tombigby) Pearl, Yazoo, Mississippi, Tennessee, Cumberland, Kentucky, Wisconsin, St. Croix.

CITIES.—Richmond, (capital), Norfolk, Yorktown, Alexandria, Lynchburg, Petersburg; Wilmington, Raleigh, New Berne; Charleston, Columbia; Savannah, Atlanta, Milledgeville, Augusta, Dalton, Columbus, Macon; Jacksonville, Tallahassee, St. Augustine, Pensacola, Key West; Mobile, Montgomery, Selma, Hunts-

ville; Vicksburg, Jackson, Natchez; Memphis, Nashville, Chattanooga, Knoxville; Louisville, Frankfort, Lexington; Wheeling (capital), Parkersburg, Charleston; Indianapolis (capital), Fort Wayne, Terre Haute, Evansville, New Albany, Madison, Lafayette; Cincinnati, Columbus, Cleveland, Sandusky, Toledo, Springfield, Dayton; Detroit, Lansing, Kalamazoo, Grand Rapids, East Saginaw, Ann Arbor; Milwaukee, Madison, Fon du Lac, Racine, La Crosse, Oshkosh.

CAPES.—Charles, Henry, Lookout, Fear, Sable.

LAKES.—Okeechobee, Erie, St. Clair, Huron, Michigan, Superior.

BAYS.—Pamlico Sound, Albermarle Sound, Appalachee, Mobile, Saginaw, Green Bay, Tampa.

MOUNTAINS.—Alleghany, Cumberland, Blue Ridge, Mitchell's Peak.

Define Mathematical, Physical and Political Geography. Illustrate fully.

Determine the { Position { Absolute, (latitude, longitude) / Relative, (boundary.) } / Size { Length. / Breadth. / and Area. } / Population of the United States. }

Review any of the outlines found in the "Oral Geography."

Review terms needed.

Pass to next month's work when this is exhausted.

FEBRUARY—WEST CENTRAL (NORTH AND SOUTH DIVISION) WESTERN OR HIGHLAND STATES.

RIVERS.—Minnesota, Des Moines, Missouri, Osage, Kansas, Platte, Red River of the North, Arkansas, Red, Sabine, Brazos; Colorado, Rio Nueces, Rio Grande, Columbia, Sacramento, Colorado (Green and Grand), San Joaquin, Yukon, Wiliamette, Snake.

CITIES.—Minneapolis, St. Paul, Winona, Red Wing; Davenport, Des Moines, Burlington, Keokuk, Dubuque, Council Bluffs; St. Louis, Jefferson City, Kansas City, Hannibal, St. Joseph; Leavenworth, Topeka, Lawrence; Omaha, Lincoln; Little Rock (capital), Hot Springs; New Orleans, Baton Rouge; Galveston, Austin, Houston, San Antonio, Brownsville; San Francisco, Sacramento, San Jose; Portland, Salem; Virginia City, Carson City, Denver (capital).

THE TERRITORIES.—Prescott, Tucson, Santa Fe, Albuquerque, Salt Lake City, Cheyenne, Boise City, Idaho City, Helena, Virginia City, Tallequah, Yankton, Sitka.

MOUNTAINS.—Iron, Pilot Knob, Pike's Peak, Mt. Shasta, Mt. Hood, Mt. St. Elias, Mt. Fairweather, Rocky, Coast, Sierra Nevada.

LAKES.—Itasca, Devil's, Great Salt, Tulare, Klamath.

CAPES.—Flattery, Mendocino, Pt. Conception, Prince of Wales.

OTHER COUNTRIES OF NORTH AMERICA.

CITIES.—Halifax, Charlottown, Frederickton, St. John, Quebec, Montreal, Ottawa, Toronto, St. John's, Winnipeg, Victoria, New Westminster, Havana, Aspinwall, Panama, San Salvador, Guatemala, Balize, Vera

Cruz, Tampico, Mexico, Acapulco, Matamoras, Reykjavik.

ISLANDS.—Greenland, Iceland, New Foundland, Cape Breton, Bermudas, Bahamas, West Indies, Sitka. (Name the largest four.)

CAPES.—Farewell, Race, Sable, St. Lucas, Barrow.

BAYS.—Hudson, Baffin, St. Lawrence, Mexico, Campeachy, Honduras, California. Caribbean and Behring Straits.

Generalize the study of North America at this point, and make up general topic lists for review.

The teacher should carefully scan the map of North America for cities of importance omitted from those here selected.

For review this class can do no better than turn to the outlines for "Oral Geography" of the United States, and make a thorough study of the several geographical divisions of the Union.

ARITHMETIC—B. INTERMEDIATE.

Book.—In the hands of the pupil.

Object.—To complete the work begun in the Primary Division and lay the foundation for thorough work in the Advanced Division.

The Third Reader class, together with the brightest pupils of the Second Reader, should complete the number work begun in the Primary Division, and take up Notation and Numeration, studying through the four fundamental rules. If this class be allowed to purchase books, they should be some one of the modern authors and Book Number One of a two-book series or Book Number Two of a three-book series. The Prac-

tical Arithmetic is too difficult for this grade. If pupils already possess books it will be advisable to follow some modern graded book as a guide in the pupil's progress. He will progress more rapidly by doing much of this work in connection with his regular text book questions.

Definitions should not be required of pupils in this grade, but they should have much practice in problems suited to their capacity.

All work in Arithmetic should be anticipated by preparation for new work, given orally, and without use of book. Thus, while the pupil is yet studying addition and subtraction, the teacher should lead him to understand these operations in United States money. With many of our authors it is best to turn forward to the application of problems in United States money and solve them ere completing the same operations in simple numbers.

The teacher should require a complete mental solution of at least one problem daily.

Problems for solution may be placed upon the board. By placing a problem before pupils daily, of a nature to bring out principles studied, the teacher will secure a practical review that is so essential to success in teaching Arithmetic.

Remember that you can not require too many practical problems from your pupils, provided that you insist upon a complete explanation.

The table for time should be introduced and disposed of long before reaching compound numbers. Many problems should be given upon each table in order to give pupils sufficient practice.

Teachers should study economy of time in their

instruction of classes. It is a decided loss of time to require pupils to solve problems during recitation. Lessons are usually assigned at the preceding recitation, and SHOULD BE PREPARED AT THE STUDY DESK, NOT AT THE RECITATION. If problems are assigned, they should be solved, then written upon the slate or paper as in examination by indicating all the processes, thus placing the solution in its best order for *verbal analysis*. The whole recitation should be given to the analysis of these problems, and to the teacher's suggestions.

Illustration:

1. How many boots in 10 pairs?

2. At 1c. a lb., what will ½ a ton of hay cost?

3. A farmer bought 24 sheep and sold ⅓ of them; how many had he left?

4. A man earns $9 a week, and his son $4; what will they earn in 4 weeks?

5. If 8 weeks' board cost $72, what will 6 weeks' cost?

These should be solved and arranged as follows: (*Slate Arrangement.*)

(1.) $2 \times 10 = 20$, No. of boots.

(2.) ½ of 2,000 lbs. = 1,000 lbs., $1{,}000 \times 1c = 1{,}000c.$ or $10.00.

(3.) ⅓ of $24 = 8$, sold; $24 - 8 = 16$, left.

(4.) $\$9 + \$4 = \$13$, earned in 1 week; $\$13 \times 4 = \$52$, earned in 4 weeks.

(5.) ⅛ of $\$72 = \$9$, for 1 week; $\$9 \times 6 = \$54$, for 6 weeks.

In the recitation the analysis would be about as follows:

1. Since 1 pair is two boots, 10 pair will consist of 10 times 2 boots, or 20 boots.

2. ½ of a ton of hay is ½ of 2000 lbs., or 1000 lbs.; since 1 pound cost 1 cent, 1000 lbs. will cost 1000 times 1c.=1000c., or $10.00.

3. ⅓ of 24 sheep is 8; since he had 24 sheep and sold 8 of them, he will have left the difference between 24 sheep and 8 sheep, which is 16 sheep.

4. If a man earn $9 in 1 week, and his son $4, they will earn the sum of $9 and $4 which is $13, in 1 week; since they earn $13 in 1 week, they will earn 4 times $13 in 4 weeks, which is $52.

5. If 8 week's board cost $72, one week's board will cost ⅛ of $72, or $9; 6 week's board will cost 6 times $9, or $54.

To make these analyses complete, the teacher should have his pupils add the conclusion, as ordinarily given in the arithmetics.

The pupil should be prepared upon the practical work of factoring long before he reaches this division in Arithmetic. He should be able to name the prime and the composite numbers to 100; the odd and even numbers at sight; numbers divisible by 2, 3, 4, 5, 6, 7, 8, 9; he should be able to write the factors of all numbers to 100 at least. If this be done, he will have but little trouble with factoring.

The methods here given are but suggestive, and are intended only to illustrate how the teacher may be able to secure methods of his own, better than these. Do not use these unless you have no others.

No teacher can afford to lose his individuality in the attempt to carry out the methods of another. The

teacher must adopt those methods which he can use, and invent or improve others, always keeping in mind that every method must be according to the principles of the development of the child nature.

At first it may be necessary to limit the examinations for Obtober to the fundamental principles; after a year's work as here directed, this trouble will be obviated.

OCTOBER.

1. Addition; sum, sign, equality, like numbers, principles, rule.

Give numerous practical problems.

Think of results, and not the numbers themselves. Thus, do not say 4 and 5 are 9, and 7 are 16, and 8 are 24, etc.; but 9, 16, 24, etc. In adding long columns, prove the result by adding each column separately in the opposite direction before adding the new column. Write one or two problems on the board similar to these daily, and have them solved at the study desk for the recitation.

1. Find the sum of all the numbers ending with 5, from 5 to 75.

2. Find the sum of the four numbers that can be expressed by the two numbers 5 and 8.

3. Find the sum of all the numbers from 12 to 36.

4. Find the sum of all the even numbers from 1 to 72.

5. Find the sum of the odd numbers from 1 to 55.

6. How many days in

Summer?

Winter?

Spring?

Fall?

} In the year?

Continue this at pleasure; constant and rigid discipline in the process of addition will finally succeed in making pupils accurate.

Subtraction; minuend, subtrahend, difference, sign, principles, rule.

Secure all the practical problems possible. Have most solutions proved for a time.

How do salesmen usually make change? Explain whether it is by subtraction or by addition.

1. Bought a cow for $75 and a horse for $125, and paid $120 down. How much do I owe yet?

2. Find the sum of the ages of three men in 1885, born in 1824, 1840 and 1850, respectively.

3. Find the difference between the largest and smallest numbers that can be expressed by the nine digits.

4. Mr. Wicks and Mr. Walker live, respectively, 987 miles and 239 miles west of this place. How far apart do they live?

5. How many days from Mar. 16 to Dec. 10?

Continue problems at pleasure.

Pass at once to November outline.

NOVEMBER.

1. Multiplication; multiplicand, multiplier, product, sign.

2. The denomination of the product. What about the multiplier?

4. Principles of Multiplication

- Multiplicand × Multiplier = Product.
- $\frac{\text{Product.}}{\text{Multiplier.}}$ = Multiplicand.
- $\frac{\text{Product.}}{\text{Multiplicand.}}$ = Multiplier.

5. Table of dry Measure with a review of the tables already learned.

NOTE.—Solve at least one example a day in Mental Arithmetic, using a method of analysis similar to the following:

EXAMPLE:—Find the cost of five bushels oats at thirty-five cents a bushel.

After the pupil has repeated the problem understandingly, he should say:

Since one bushel of oats costs thirty-five cents, five bushels will cost five times thirty-five cents, which is one dollar and seventy-five cents; hence five bushels of oats will cost one dollar and seventy-five cents.

Drill ! Drill !! Drill !!!

Do not stop with the limit of the examination but move right along as far as possible to do the work thoroughly.

Write one or two good search questions each day; have these written out upon the slates, neatly and carefully; all the suggestions given upon the subject of examinations should be considered in the examination of slates.

Do not omit daily reviews. Those teachers who neglect these reviews are often surprised to learn that their pupils cannot readily solve and analyze "promiscuous problems," found in their arithmetics.

Review! Review!! Review!!!

The process should precede the theory in this division. Give pupils good methods and processes in order to have good forms for analysis. Let analysis precede the definition, and omit the text book definition until about ready to leave the subject.

If the teacher has been active he can at once pass to the next month's work, and prepare the pupils for examinations by means of his daily reviews.

1. $2 \times 4 \times 0 \times 3 \times 6 =$?

2. Why begin at the right hand to add columns?

3. Why are the multiplicand and multiplier called factors?

4. Why is the right hand figure of each fractional product always written directly beneath the figure of the multiplier that produced it?

5. Of what denomination is the product?

6. Can you multiply turnips by potatoes? Suppose you were asked to multiply *five* turnips by *three* potatoes, what would you say? Multiply $2.00 by 50 cents. (Be cautious.)

7. Why is the table of Dry Measure so called? Why not call it Wet Measure?

8. A man sold 13 cows, then bought ten and then had 12; how many had he at first? ——— and ——— began playing marbles with 20 each; at the close of the game one had 16, how many had the other? (Insert the names of two of your pupils.)

9. Mr. ——— bought 15 horses, and sold 6 of them, and then lacked 4 of having 20; how many had he at first?

10. Think of any number, multiply it by 6, divide by 3, multiply by 2, divide by 4, add 10, subtract the number thought of, divide by 5, the quotient is what?

11. Thomas travels 5 miles an hour, and John 3; how much farther will Thomas travel in 12 hours than John?

12. There are 18 horses in a barn. How many shoes will it require to shoe them?

13. What will cost fourteen cows, 18 horses and 60 hogs; cows worth $34.00, horses $165.00, hogs $11.00 each.

14. The cost of all these:

25 bbls. flour @ $5.60.	113 bu. wheat at $1.22.
32 bags flour @ $2.75.	217 bu. barley at $1.05.
19 " bran at 90 cts.	324 bu. oats at $0.45.
14 " oatmeal at 48 cts.	416 bu. rye at $0.95.
25 lbs. wheat @ 7 cts.	322 bu. peas at $0.75.

15. $24+6—3+7\times4+8—6+7\times6\times14=$?

16. A boy had 13 apples and five times as many peaches, how many had he?

27. Mr. ——— bought 35 cloaks at $19.00 each, cartage $4.00; how much shall he charge for them in order to clear $21.00?

18. Find the cost of these:

25 bbls. of flour at $5.60.	37 yds. flannel at 35c.
32 bags of flour at $2 75.	52 yds. muslin at 19c.
19 bags of bran at $0.90.	64 yds. prints at 14c.
14 stone of oatmeal at 48c.	52 yds. lace at 98c.
27 lbs. of wheat at 7c.	12 tons hard coal at $8.00.
27 lbs. of pork at 18 cents.	14 tons soft coal at $2.25.
32 lbs. of beef at 12c.	18 cords wood at $6.50.
18 lbs. of mutton at 14c.	215 bu. apples at $2.15.
12 lbs. of veal at 15c.	420 bu. plums at $1.20.
18 lbs. of lamb at 17c.	132 bu. peaches at $1.75.
25 lbs. of ham at 13c.	215 bu. cherries at $1.35.
38 yds. cotton cloth at 7c.	217 bu. pears at $1.50.
42 yds. cashmere at 58c.	130 bu. quinces at $1.40.

Pass to next month's outline when this is completed.

DECEMBER.

1. Division; dividend, divisor, quotient, signs, remainder.

2. How prove work?

3. What are the factors in division?

4. Understand and define even and odd numbers, prime and composite numbers.

5. All work to be explained should be indicated.

6. Principles of Division:

$$\left\{\begin{array}{l} \left.\dfrac{\text{Dividend.}}{\text{Divisor.}}\right\} = \text{Quotient.} \\ \\ \left.\dfrac{\text{Dividend.}}{\text{Quotient.}}\right\} = \text{Divisor.} \\ \\ \text{Divisor} \times \text{Quotient} = \text{Dividend.} \end{array}\right.$$

7. Table of Long Measure with a review of the tables already learned.

8. Solve at least one example a day in Mental Arithmetic, using a method of analysis similar to the following:

EXAMPLE.—Mary sold four quarts of berries at ten cents a quart, and with the money bought calico at five cents a yard. How many yards of calico did she receive?

Since one quart of berries is worth ten cents, four quarts must be worth four times ten cents, which is forty cents. If for five cents she received one yard of calico, for forty cents she would receive as many yards as five cents are contained times in forty cents, which are eight times; hence eight yards of calico.

Drill ! Drill !! Drill !!!

Do all work thoroughly, indicate and give full analysis

of every problem; have new and original problems every day.

Analyze everything, or at least be satisfied that your pupils can do so.

Do not neglect to write problems upon the board and have them solved, indicated, and analyzed in the class.

Spend all the time in the class in the recitation and in explanation. Do not lose a minute in *preparation* in the class. It is disorganizing in the extreme to spend the recitation hour in the *preparation* of the lesson; if you would suceed in Arithmetic, economize time and have clear solutions given from prepared work in mathematical formulas. *Mental Arithmetic is invaluable.* Do not forget this:

1. If the divisor is 14, the dividend 265, what is the quotient?

2. If the divisor is 15, the remainder 7, the quotient 16, what is the dividend?

3. If 6 men can mow 12 acres of grass in a day, how much can 8 men mow in the same time?

4. A man gave 9 bushels of wheat for 3 barrels of flour, what was the wheat worth if 8 bbls. of flour were worth $72?

5. Of what denomination is the quotient? The remainder?

6. A man raised 8,800 bushels of corn on 160 acres of land, which he sold at 50c. per bushel; how much did it average in price per acre?

7. When you say, "Divide 24 by 3," what do you mean?

8 A merchant bought 240 barrels of flour for $920, and sold it at $10.50 a barrel. What did he gain?

9. What cost 9 quarts of milk if 4 quarts cost 20c.?

10. If 12 yards cost $40, at how much a yard must it be sold to gain $20?

11. How many acres in a piece of land 60 rods square.

12. What will be the cost of a portion of land 120 x 240 rods, at $40 per acre?

13. What is the area of a square piece of land, the distance of which is 560 rods around?

1760 yards = 1 mile.
3520 " = "
8660 " = "
92470 " = "

12 inches	= 1 foot.	1 yard	= 36 inches.
24 "	= 2 feet.	26 "	= "
60 "	= "	75 "	= "
720 "	= "	18 "	= "
4520 "	= "	19 "	= "

14. At 3c. a yard, what will 5 miles of telegraph cost?

15. My neighbor's farm is ¾ of a mile square; how many acres does it contain?

16. How many days in 7 of the longest months?

17. How many will it take to do in one day what 368 men do in 134 days? How long will it take 1 man?

18. How many men can perform the same work in 16 days?

19. How many square inches in the surface of a brick 8 inches long, 4 inches wide, and 2 inches thick?

20. A lad bought a history for $1.10, gave the merchant a $2 bill. He received his change. He then bought a dictionary for $3.60, giving the merchant a five dollar bill, the only bill he had; how much money had he after the transaction?

21. What cost 60 apples at the rate of 10 for 7 cents?

22. If eggs are worth 9 cents a dozen, and butter 12 cents a pound, how many eggs are worth 6 lbs. of butter?

23. In 7 times 11 less 5, how many 9's?

24. How many times can 437 be subtracted from 18791?

25. What is the difference between 106×127 and $15341 \div 29$?

26. How many lbs. of sugar at 9c. a lb. can be bought for $14.67?

The limits as given above are not intended to have the class devote its whole time to the terms listed, but the class shall move along just in proportion to its attainment. If the class can readily solve the problems embraced in the above theory, it should not even stop to review the book problems, but take work just where its attainments place it. By so doing, the class may take one or two terms from the outline daily, for definition and illustration, until it is prepared for the examination.

It may be that classes can readily solve and analyze all problems to fractions; if so, permit them to begin at that place, and to review a little daily upon the month's work.

Try this test; rule spaces upon the board to be copied on the slates as follows:

			+	—	×	÷	+		
	1	2	3	4	5	6	7		
1	2	5							
2	7	2							
3	9	1							
4	8	7							
5	4	8							
6	5	6							
7	6	4							
8	9	8							
9	3	4							

Now require the pupils to perform the operations upon columns 1 and 2 indicated by the sign over other column, and to write the result in the appropriate column, opposite the numbers producing them. Thus in column 3, the pupil would write 7; in column 4 he would write 3; in column 5 he would write 10; 2½ in column 6; and 22½ in column 7.

The teacher can readily change this by substituting other numbers in columns 1 and 2. This form will serve the same purpose in common and decimal fractions.

When the above is completed pass to the next division. Do not wait for the examination.

JANUARY.

MEASURES.
- EXTENSION.
 - Linear.
 - Surveyors'.
 - Square.
 - Circular.
 - Cloth.
- CAPACITY.
 - Cubic.
 - Liquid.
 - Dry.
 - Beer.
- WEIGHT.
 - Avoirdupois.
 - Troy.
 - Apothecarys.
- CURRENCY.
 - U. S. Money.
 - English Money.
- DURATION.—Time.

Reduction, ascending, descending.

Have appropriate practical problems upon each table. Have at least one review problem each day.

1. What is the value of a pile of wood 4 ft. in height, 6 ft. in length and 3½ ft. in width, at $4.50 per cord?

2. What cost 24 joists whose dimensions are 4 in. by 3 in. and 11 feet long, at 25 cts. a cu. ft?

3. At $1 per yd. what will it cost to carpet a room 18 ft. long and 15 ft. wide?

4. At 8 cts a pound, what will 3 cwt. of sugar cost?

5. What is the cost of a ton of hay at 1 cent a pound?

6. At $3.00 a bushel, what is the cost of 30 lbs. of beans?

7. At $12 a barrel, what will a sack of flour weighing 49 lbs. cost?

8. What is the cost of 2 bags of wheat, each containing 120 lbs., at $2 per bushel?

9. What will be the cost of 1 hhd. of molasses at 28 cts. per gallon?

10. How many years in the 18th century? In the 19th?

11. At 12½ cents each, what will be the cost of 2 dozen writing books?

12. How many rods of fence around a section of land?

13. What will be the cost of 3 mi. of telegraph at 12 cts. per foot? Of 1 hhd. of wine, at 40 cts. a pint?

14. Of 360 quarts of milk at 32 cts. a gallon?

15. Of 1 ton of corn meal at $1.20 per bushel?

16. How many days from May 10, to July 16, inclusive?

17. How many dozens in ½ of a great gross?

18. What cost a gross of pens at 10 cts. a dozen?

19. How many days has a person lived who is 12 years old?

20. If you can count 60 a minute, how long will it take to count 1800?

21. How much hay in 13 stacks, each containing 4 T. 13 cwt. 56 lbs.?

22. If 12 equal bins hold 430 bu. 2 pks. of wheat, how much wheat is there in each bin?

23. How many rotations will a wheel 12 ft. 6 in. in circumference make in rolling a mile?

24. What will 56 lbs. of grapes cost at 12½ cents a pound?

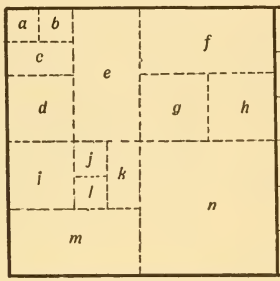
25. What will 120 spellers cost at 25 cents apiece?

26. What is the cost of 96 eggs at 20 cts. a dozen?

27. At 25 cts. a dozen, how many dozen eggs can be bought for $42.00?

28. What will 2 pks. 7 qts. of chestnuts cost at $3.20 per bushel?

If not already done, it would be well to show the pupils how land is divided into half sections, quarter sections, etc. From such devices as the following, secure a good knowledge of these divisions:



(III)

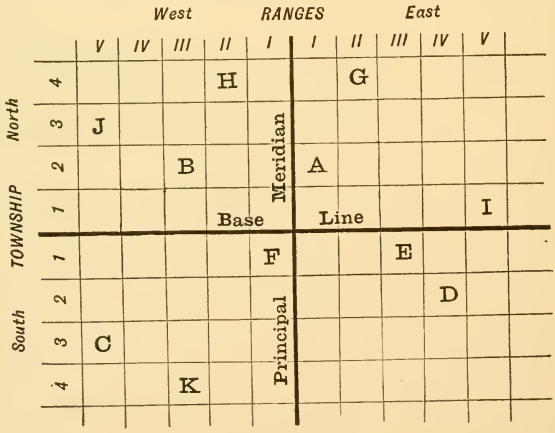
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

(II)

Let pupils write deed discription of 80's, 40's, etc.

For suggestive problems see list at close of this division of the course of study.

The pupil should study the sub-division of the *township* and *sections* as indicated by the following diagrams:



(I)

TABLE.

1 section,	1 mi. by 1 mi.=	1 sq. mi.=640 a.
½ section,	1 mi. by ½ mi.=	½ sq. mi.=320 a.
¼ section,	½ mi. by ½ mi.=	¼ sq. mi.=160 a.
⅛ section,	½ mi. by ¼ mi.=	⅛ sq. mi.= 80 a.
1–16 section,	¼ mi. by ¼ mi.=	1–16 sq. mi.= 40 a.

Make numerous practical problems upon above.

Pass to next month's work.

FEBRUARY.

The fundamental rules applied to compound denominate numbers. The Government Land Surveys and practical land problems applied to farming.

Numbers factored to 100.

Drill! Drill!! Drill!!!

Other months at the discretion of the teacher; usually it will be well to take the October work for the B. class, in this division, for this month; if the class attend through the spring months, it is best to take the regular monthly work for the fall months; this prepares the pupil for strong work during the following year.

But few terms should be defined in this class; it is enough to be able to solve the problems and to give a full and complete analysis of them.

It is better to have a pupil able to comprehend, solve, accurately and understandingly, practical problems concerning the measurement of lumber, as applied to buildings, fencings, walks, etc.; the application of square measure; solid measure; and the buying and selling of stock, than to be able to give a hundred or more hair-splitting definitions, without their application in real practice.

It is better that a boy be able to write out and receipt a bill of goods, a receipt for money paid on account, a promissory note, endorsements upon the same, etc., than to define all these terms without knowing what they mean. "*Words, words*, my lord," do not always indicate a knowledge of a subject; it is *practice* and *explanation* that indicate it in the study of Arithmetic.

What is the difference of time between Washington and Greenwich?

The difference in time between Boston and Detroit is 47 min. 56 sec.; what is the difference in longitude?

When it is 9 A. M. in New York, lon. 74° 3′, what is the time in Richmond, Va., lon. 77° 35′ 45″? In San Francisco, lon. 122° 26′ 45″?

If a ship's chronometer at noon reads 9:30 A. M., how many degrees and in what direction has she sailed?

Take your geographies and arithmetics and make out the longitude of the principal cities, thus:

Boston, 71° 3′ 30″ W.	Washington, 77° 0′ 15″ W.
Chicago, 87° 37′ 47″ W.	Canton, 113° 14′ 0″ E.
Cincinnati, 84° 27′ 00″ W.	Constantinople, 28° 59′ 0″ E.
New Orleans, 90° 00′ 00″ W.	London, 5″ 48″ W.
New York, 74° 0′ 3″ W.	Paris, 2° 20′ 22″ E.
San Francisco, 122° 26′ 45″	Berlin, 13° 23′ 53″ E.

Form all the problems you can from these data, thus: When it is noon in San Francisco, what is the time in Canton?

When the captain of a vessel bound from New Orleans to New York, finds his chronometer 24m. slow by the sun, is he E. or W. of N. Y., and how far?

Find the difference in longitude corresponding to the following difference of time:

11 hr. 17 min. 13 sec.	7 hr. 17 min. 27 sec.	8 hr. 16 min. 24 sec.
6 hr. 59 min. 17 sec.	15 hr. 14 min. 29 sec.	17 hr. 19 min. 37 sec.
10 hr. 10 min. 10 sec.	5 hr. 29 min. 25 sec.	4 hr. 9 min. 45 sec.

Put the following items in the form of bills, as if bought from your merchant, and find the amount of each, and receipt them.

Bought 35 doz. gloves at $4.50 per doz.; 95 yds. black silk, at $0.87½ per yard; 115 yds. colored silk at $0.78; 36 crape shawls at $32.50 apiece; 65 Broche ditto at $17.80; what was the amount of the bill?

January 22, 1887. Thomas Gibson buys of James Currie and Son, on account, 35 yds. Tweed at $1.20; 14 yds. Drilling at 12½ cts.

July 5, 1886. W. H. Huston buys of J. S. Robertson & Bros., on account, 3 quires Foolscap at 27 c.; 5½ quires Letter at 22 c.; 1 McLellan's Algebra, $1.75; 1 set Dickens, 12 volumes, $22.50; 3 Ancient Classics at 65 c.

November 3, 1886. John Wallace buys of the Keewatin Lumber Co., 1350 ft. pine at $32.50 per M.; 6250 ft. hemlock, at $24.50 per M.; 3650 cedar posts $9.50 per C.; 4500 shingles at $4 40 per M.; 12250 fence pickets at $6.80 per M.; make bill and receipt it.

August 20, 1885. Richard Ball buys of C. E. Brown & Co., 26 yds. silk at $1.45; 4 yds. lining at $0.15; 2½ yds. lining at 20 c.; 4 yds. muslin at 11 c.; 2 doz. buttons at 25 c.; 12 yds. flannel at 38 c.; 5 yds. cotton @ $0.14; 2 pair kid gloves @ $1.25; 3½ yds. ribbon @ 42 c.; 1 silk handkerchief, $1.45; 6½ yds. of embroidery @ 36 cts.; make out and receipt the bill.

Find the number of board feet in a board.

12	feet	long,	12	inches	wide,	1	inch	thick.
12	"	"	10	"	"	1	"	"
13	"	"	18	"	"	1	"	"
14	"	"	7	"	"	1	"	"

Find the number of board feet in a plank.

12 feet long, 18 inches wide, 1½ inches thick.
12 " " 14 " " 1½ " "
13 " " 16 " " 1¼ " "
16 " " 13 " " 1¾ " "
19 " " 12½ " " 2 " "
18 " " 13½ " " 3 " "
15 " " 14½ " " 2 " "
16 " " 15½ " " 2 " "
9½ " " 8 " " 2½ " "
8½ " " 16 " " 3½ " "
7 " " 15 " " 2½ " "
9 " " 9 " " 3¼ " "
10 " " 3 " " 2½ " "
14 " " 4 " " 3¼ " "
16 " " 6 " " 4½ " "
20 " " 5 " " 3¾ " "

At $18 per thousand find the total cost of 2 boards, 12 feet long, 2 feet wide, 1 inch thick; 3 boards, 14 feet long, 1½ feet wide, 1½ inches thick; 4 boards, 15 feet long, 2¼ feet wide, 1¼ inches thick.

At $20 per M. find the cost of

3 planks, 12 feet long, 14 inches wide, 2 inches thick.
5 " 18 " " 15 " " 3 " "
7 " 8 " " 12 " " 2 " "

At $27.50 per thousand find the total cost of

5 scantlings 18 feet long 4 inches wide, 3 inches thick.
9 " 14 " " 5 " " 4 " "
8 " 12 " " 6 " " 5 " "

At $22 per thousand, find the cost of the lumber required to enclose a square ten acre field with a board

fence; the boards to be 11 feet long, 6 inches wide, and 1 inch thick, and the fence four boards high.

How many feet of lumber in a side walk 100 yards long, 6 feet wide, and 1½ inches thick?

How many feet of lumber in a fence 40 rds. long, 5 feet high and 1 inch thick?

Find the cost of 12 planks, each 12 feet long, 12 inches wide and 3 inches thick, at $24 per M.

How many board feet in a plank 14 feet long 12 inches wide and 3½ inches thick?

How much inch lumber will it require to cover a walk 4 feet wide around a lot 300 by 250 yards?

A bridge 132 yards long and 18 feet wide is covered by plank 2½ inches thick; find the cost at $18.50 per M.

Find the cost of 3 boards, each 18 feet long, 14 inches wide, and ¾ of an inch thick, at $24 per thousand.

How many rods of fence will be required to enclose a field in the shape of a rectangle, one side of which is 64 rods, and containing 20 acres?

What will it cost to paint the floor of a room 20x24 feet, at 22c. per square yard?

If a field 200 yards wide contain 15 acres, how long is it?

How many bushels of wheat in a bin 391 inches long, 11 feet wide and filled 4½ feet deep?

How many bushels of wheat will weigh as heavy as 600 bushels of shelled corn?

A farmer has a bin 18 feet long, 10 feet wide and 6 feet deep which is ¾ full of wheat; what is the wheat worth at $1.10 per bushel?

Find the number of feet, board measure, in 25 joists, each 6 by 5 inches, and 18 feet long.

Cash—on hand at the beginning of the day, $572.20; received during the day, $425.95; paid, $65.80; what is balance on hand?

Cash—on hand at beginning of day, $273.87, received during day, $243.10; on hand at close of day, $362.42; what was paid out?

Cash—on hand at beginning, $5,200.25; paid out $353.98; on hand at close, $6,056.83; how much received?

Cash—received during day, $10.23; paid out, $15.63; balance on hand at close of day, $2.45; how much was on hand at beginning?

Add $\frac{5}{6}$ of a dozen to $\frac{2}{5}$ of a hundred, and subtract the sum from $\frac{19}{25}$ of a thousand.

OCTOBER—ARITHMETIC—B. INTERMEDIATE.

1. Factoring: prime and composite numbers; even and odd numbers.

2. Divisor, common divisor, greatest common divisor.

3. Find the Greatest Common Divisor of numbers by *factoring* only. Be able to explain the work.

4. *Multiple*, common multiple, least common multiple.

5. Find the Least Common Multiple by *factoring*. Be able to explain the work.

6. Longitude and Time reviewed.

Give much attention to common divisors, but do not require definitions until near the end of the month's work.

Name the prime numbers from 1 to 100.

Name the odd numbers from 1 to 100.

What odd numbers are prime? (From 1 to 100.)

What odd numbers are composite?

What even number is prime?

Which composite?

What prime number can be divided by 2?

What numbers can be divided by 2?

Which of the following numbers cannot be divided by 3:—421, 565, 729, 463, 735, 861, 942.

When is a number divisible by 3?

When is a number divisible by 4? By 5? By 6? By 8? By 9? By 10? By 11?

What number must be subtracted from 461,633 to make it exactly divisible by 758?

I have a coin, and on it is stamped MDCIV. In what year was it made?

Except in large numbers the pupil should find the L. C. M. and the G. C. D. by factoring, thus:

$24 = 2, 2, 2, 3.$
$50 = 2, 5, 5.$
$32 = 2, 2, 2, 2, 2.$

$2 =$ G. C. D.

$2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 5 = 2400$ L. C. M.

Rule.—The product of the COMMON factors equals the G. C. D.

Rule.—The product of each factor taken the greatest number of times it occurs in any one number equals the L. C. M.

Prepare pupils for fractions long before they reach that topic. Learn the aliquot parts of 100.

$\frac{1}{2}$ of $100 = 50$ $\frac{1}{4}$ of $100 = 25$ $\frac{1}{6}$ of $100 = 16\frac{2}{3}$

$\frac{1}{3}$ of $100 = 33\frac{1}{3}$ $\frac{1}{5}$ of $100 = 20$ $\frac{1}{8}$ of $100 = 12\frac{1}{2}$

What is the smallest sum of money which can be exactly expended for books at \$5, or \$3, or \$4, or \$8 each.

Find the shortest piece of rope that can cut into pieces either 12, 14 or 20 feet long.

Divide the L. C. M. of 7, 14, 42 by the G. C. D. of same numbers.

Problems like the above should be given frequently. You cannot give too many practical problems in any division of the arithmetic.

Of what value is the process of finding the L. C. M? Of the G. C. D?

ANY NUMBER IS DIVISIBLE BY

1.
2, if an even number.
3, if the sum of its digits is divisible by 3.
4, if the number expressed by its two right hand digits is divisible by 4.
5, if its right hand figure be 5 or 0.
6, if an even number and divisible by 3.
7, if the unit's period and the thousand's period are the same.
8, if the first three figures are divisible by it.
9, if the sum of its digits is divisible by it.
10, if the right hand figure is 0.
11, if the unit's period and the thousand's period are the same.
&c., &c., &c.

Do not stop advance work in order to take the examination, but pass to the next division.

NOVEMBER.—FRACTIONS.

NOTE.—Remember that fractions occur in nearly every calculation of actual business, and that these fractions usually appear in the simple forms of halves, thirds,

fourths, etc.; hence the importance of this subject. (A fraction is a division.)

1. Fraction; terms (numerator and denominator), proper, improper, mixed numbers, simple, compound, complex.

2. How reduce a fraction to its lowest terms? Upon what principle does this depend? Notice the use here made of factoring.

3. How reduce an improper fraction to an integer or a mixed number? Solve many examples mentally, using a rigid form of analysis, as: Reduce 7/2 to a mixed number. Since in one unit there are 2/2, in 7/2 there are as many units as 2/2 is contained times in 7/2, which is three times and a half; hence 7/2 are equal to 3½ units.

4. How reduce a mixed number to an improper fraction?

Solve many examples mentally, using a rigid form of analysis, as: Reduce 3½ to an improper fraction. Since in one unit there are 2-2, in 3 units there must be 3 times 2/2 which is 6/2; and 6/2 + ½ equals 7/2.

5. How reduce a whole number to the form of a fraction?

6. How reduce fractions to their least common denominator? What former principle is applied here, and of what use is this case?

7. Addition of fractions.

8. Subtraction of fractions.

Drill! Exercise!! Practice!!!

Turn forward to the promiscuous problems and solve those which apply to principles already learned.

GENERAL PRINCIPLES OF FRACTIONS.	Multiplying the numerator, or dividing the denominator,	MULTIPLIES the fraction.
	Dividing the numerator, or multiplying the denominator,	DIVIDES the fraction.
	Multiplying or dividing both the numerator and denominator by the same number,	DOES NOT CHANGE the value of the fraction.

The above may be reduced to one *general principle*, viz:

A change in the NUMERATOR, by multiplication or division, produces a LIKE change in the value of a fraction; but such a change in the DENOMINATOR produces an OPPOSITE change in the value of a fraction.

Let each case be preceded by careful inductive exercises leading directly to modern processes for written solutions.

You cannot give too much attention to the matter of correct mathematical solutions.

Keep up the plan of giving one or two mental problems daily.

Pass to the next month's work at once.

DECEMBER.

1. Multiplication of fractions.
2. How multiply a fraction by a fraction?
3. Whenever a whole number is one of the factors, change it to the form of a fraction, and then proceed as in multiplication of one fraction by another.
4. Division of fractions.

5. How divide a fraction by a fraction?

6. Whenever a whole number occurs in division of fractions, change it to the form of a fraction, and then proceed as in division of fractions.

Review where most needed.

Find several authors and search for good "promiscuous problems."

Make up table of fractions to be filled out by pupil as in the fundamental rules.

How many pecks in a bushel? In 44 bushels? One peck is what part of a bushel? of 44 bushels? Reduce 44 bushels to pecks. How many 4ths in 44 bushels?

Express in the simplest form 1344 divided by 1536.

Which is the greater fraction, and why, $\frac{75}{135}$ or $\frac{168}{252}$?

In $19 how many 10ths? how many 4ths? 20ths?

What is the L. C. M. of the denominators $\frac{2}{3}$, $\frac{2}{9}$ and $\frac{5}{6}$?

What is the L. C. M. of the denominators of $\frac{15}{40}$, $\frac{25}{120}$, $\frac{14}{64}$ and $2\frac{4}{8}$? Of $6\frac{1}{4}$, $\frac{4}{20}$, 7, $1\frac{1}{2}$, $8\frac{6}{12}$, $4\frac{4}{8}$?

Express three of the seven equal parts of a unit.

Business men frequently write only the numerators of 4ths, placing it to the right and a little above the whole number, thus: $25^1 = 25\frac{1}{4}$, $36^2 = 36\frac{2}{4}$ or $36\frac{1}{2}$, etc.

$24^2 + 25 + 26^1 + 27^3 + 28^2 + 29^3 + 24 + 23^2 + 27^3 + 29^2 = ?$

$29^3 + 22^2 + 27^3 + 29^2 + 22^3 + 21^3 + 26^3 + 28^1 + 25^1 + 32^3 = ?$

$49^2 + 54^2 + 48^2 + 47^2 + 56^3 + 51^3 + 52 + 48 + 47^2 + 46^1 = ?$

Change 32 to a fraction whose denominator is 32.

If $\frac{5}{9}$ of a mill is worth $2500, what is $\frac{5}{6}$ of it worth?

If $\frac{5}{9}$ of a mill is worth $5225, what is $\frac{3}{4}$ of the remainder worth?

If land is worth $28 per acre, what is $\frac{3}{8}$ of a section worth?

A lot and house cost $2400; the lot cost $\frac{1}{7}$ of what the house cost. What was the cost of each?

Robert sold 9 pecks of beans at the rate of 12 cents for $\frac{6}{7}$ of a peck; what did he receive?

How much will 5 tons of hay cost, if $10 buy $\frac{5}{6}$ of a ton?

What is the difference between $\frac{1}{2}$ of $\frac{1}{3}$ and $\frac{1}{3}$ of $\frac{1}{4}$?

How much greater is $\frac{1}{3}$ of $\frac{1}{4}$ than $\frac{1}{2}$ of $\frac{1}{8}$?

How much money has Jacob, if $\frac{1}{4}$ of 12 dollars is $\frac{1}{2}$ of $\frac{1}{8}$ of his money?

A cow cost 18 dollars, and $\frac{1}{3}$ of the cost of a cow is $\frac{1}{2}$ of $\frac{1}{3}$ of the cost of an ox; required the cost of the ox.

Annie having $\frac{2}{5}$ of a pound of candies, shared them equally with her five schoolmates; what part of a pound did each receive?

If 5 pints of milk cost 12 cents, how many pints can you purchase for 25 cents?

Harvey bought 8 bushels of potatoes worth $\$\frac{5}{8}$ a bushel, and paid for them with eggs at $\$\frac{2}{5}$ per dozen, how many dozen did it take?

Mr. B. having lost $10, found that only $\frac{6}{8}$ of his money remained; how much money had he?

A merchant sold goods for $\frac{10}{13}$ of what they cost, and thereby lost $24; what was the cost of his goods?

20 is $\frac{4}{5}$ of how many times $\frac{1}{2}$ of 10?

30 is $\frac{5}{6}$ of how many times $\frac{3}{4}$ of 12?

18 is $\frac{6}{8}$ of how many times $\frac{6}{7}$ of 14?

36 is $\frac{4}{6}$ of how many times $\frac{3}{5}$ of 15?

35 is $\frac{7}{8}$ of how many times $\frac{4}{9}$ of 18?

½ of 16 is how many times ⅓ of 12?

How many apples does a man give away who gives 5 girls each $\frac{5}{6}$ of an apple?

What is the cost of seven pens at ⅔ cts. apiece?

How many times ⅔ is ¾? How many times $\frac{4}{5}$ is $\frac{6}{7}$?

What part of $\frac{3}{6}$ is ⅔? Of ¾ is $\frac{5}{6}$? Of $\frac{5}{6}$ is ¾? Of ¾ is ⅔? Of $\frac{4}{5}$ is $\frac{5}{6}$? Of $\frac{6}{7}$ is ⅜? Of $\frac{2}{5}$ is ¾? Of $\frac{3}{5}$ is ¾? Of $\frac{5}{7}$ is $\frac{3}{5}$? Of $\frac{5}{7}$ is 2½? Of $\frac{6}{7}$ is ⅔ of $\frac{6}{7}$?

Mary gave away some money, and then found 10 cents, which is ½ of what she then had and $\frac{1}{5}$ of what she at first had; how much did she give away?

What number is that to which if its third be added the sum will be 36?

Find the number which being increased by its ⅔ equals 40.

What number increased by its $\frac{3}{7}$ equals 80?

What number diminished by its $\frac{3}{7}$ equals 40?

3½ times a number minus ⅔ of the number equals 34; what is the number?

Find the cost—

Of $\frac{7}{9}$ of a yard of flannel, at $\$\frac{3}{4}$ a yard.

Of 8¾ bushels potatoes, at 37½ cents a bushel.

Of $21\frac{4}{5}$ yards of calico, at $\$\frac{1}{8}$ a yard.

Of 56 pounds of cotton, at $18\frac{3}{4}$ cents a pound.

Of 15 cords of bark, at $\$4\frac{5}{8}$ per cord.

Of 80 yards of cloth, at $\$4\frac{5}{16}$ a yard.

Of $\frac{9}{40}$ of an acre of land, at $125 an acre.

Of ⅓ of 18½ yards of silk, at $\frac{3}{4}$ of $5 per yard.

Of 126 pounds of beef at 9¼ cents a pound.

Of $36\frac{7}{10}$ tons of railroad iron at $52½ per ton?

When peaches are worth $\$\frac{7}{8}$ per basket, what are 126¾ baskets worth?

The product of two numbers is 588; one of them is 12 times the other; what are the numbers?

What is the largest multiple of both 3 and 5 that can be expressed by three figures?

What is the smallest multiple of both 2 and 7 that can be expressed by three figures?

What is the least number of which 3, 5 and 7 are factors?

What is the least number of which 3, 4, 5, 6 and 8 are factors?

Find the least number which, divided by 3, 7, 11 or 13, will give a remainder of 2 in each case.

A grocer has 42 oranges and 63 pears which he wishes to put into bags, each containing the largest number possible; how many can he put in each bag?

What is the least sum with which the dealer can buy an exact number of hats at $3, $4, $5 or $6 each?

What is the least number of acres in a farm that can be exactly divided into lots of 10 acres, 14 acres, 16 acres and 20 acres each?

What is the smallest quantity of grain that will fill an exact number of bins, whether they hold 36, 48, 80 or 144 bushels?

What is the length of the longest paving stone that can be used in exactly paving three walks 36, 48 and 54 feet?

What is the product of the L. C. M. of 12, 16, 24 and 32, multiplied by their G. C. D.?

If a man dig $29\frac{5}{16}$ rds. in 14 days, how much does he dig in 1 day?

If $1\frac{1}{3}$ bushels of oats cost $\$\frac{8}{9}$, what cost 1 bushel?

If $\frac{3}{5}$ of a farm cost $6270, what did the whole cost?

If $\frac{3}{7}$ of an acre of land cost \$63, what cost 1 acre?

If 54 horses cost \$4622$\frac{2}{5}$, what is the cost of each?

If 12 plows cost \$124$\frac{3}{4}$, what is the cost of each?

How many pounds of tea, at \$1$\frac{1}{8}$ per pound, can be bought for \$15$\frac{1}{3}$?

At \$6$\frac{2}{3}$ a ton, how many tons of coal can be bought for \$160? For \$248?

At \$$\frac{1}{12}$ a yard, how many yards of cloth can be bought for \$9? For \$24? For \$64?

At \$$\frac{3}{8}$ a pound, how many pounds of butter will \$110 buy?

If 2$\frac{2}{3}$ pounds of sugar cost \$.33, what will be the cost of 65$\frac{1}{2}$ pounds?

If $\frac{3}{8}$ of a farm is valued at \$1729$\frac{1}{2}$, what is the value of the farm?

At \$$\frac{3}{8}$ a pound, how many pounds of coffee can be bought for \$6$\frac{1}{2}$?

If from 18$\frac{3}{4}$ yards of cloth 2$\frac{4}{8}$ yards are cut, what part of the whole is taken?

If 7$\frac{1}{2}$ tons of hay cost \$120, how many tons can be bought for \$78?

I gave 6$\frac{2}{3}$ pounds of butter, at 36 cents a pound, for 3$\frac{1}{5}$ gallons of oil. What was the oil worth a gallon?

At \$23 per acre, how much land will \$17 buy?

The dividend is $\frac{18}{20}$, the quotient $\frac{2}{5}$, what the divisor?

How many yards of wall paper two feet wide, will be required for the two sides of a hall 72 feet long and 14 high?

What number subtracted from $\frac{1}{4}$ will leave 65?

Find the cost of 3920 bricks at \$8.40 per M.

What cost 2064 pounds of wheat at 75 cents per bushel?

Find the cost of a scantling 4 inches by 8½ inches, 22 feet long, at $18 per M.

How many posts 8 feet apart will it take to go around a quarter-section of land?

From a lot 80 rds. square, I sold 80 square rods; what is the value of the remainder at $150 per acre?

How many inches in 3½ rods?

How many inches in a chain?

How many yards in 24 chains?

How many inches in 3 miles?

Find the cost of 20 miles of telephone wire, at 35 cents a pound, supposing 1 pound stretches 80 feet.

How many square inches in a square yard?

Find the cost of 15 yards of canvass at 15 cents a square foot.

What cost a square mile of land at $4.25 an acre?

How many hours in three weeks?

How many pints of oil in a vessel containing 15 gallons?

How many quarts of strawberries in 12 pails, each containing ¾ of a peck?

How many sheets of paper in 3 reams?

A merchant having 20 barrels of flour, sold ¾ of it to A, and ⅗ of the remainder of it to B; how many barrels had he left?

Think of a number, multiply by 12, divide by 3, multiply by 2, multiply by 4 divide by 4, and name the result.

What cost 7 barrels of apples at the rate of $9 for 2¼ barrels?

How many chestnuts must be given for 12¼ cents, if 14 chestnuts cost 3½ cents?

What cost 10 yards of ribbon, if $4\frac{1}{4}$ yards cost $6\frac{4}{5}$ cents?

If $\frac{6}{7}$ of a pint of almonds cost $\frac{12}{14}$ of a shilling, what cost $5\frac{3}{5}$ pints?

If $2\frac{1}{2}$ yards of silk cost $2.00, what cost 4 yards?

What cost $3\frac{1}{5}$ pounds of sugar, if $2\frac{1}{2}$ lbs. cost 25 cts.?

John found 60 cents, which is $\frac{5}{4}$ of $\frac{1}{2}$ of what he then had; how much did he have at first?

If $\frac{2}{3}$ of $\frac{6}{8}$ of a yard of lace cost 8 cents, what will nine yards cost?

4 times 50 years is 10 years less than 10 times the age of James. How old is James?

If it require 4 lines of writing to make three lines of printing, and 29 lines equal 1 page of writing while 33 equal 1 page of printing, how many pages of writing will it take to make 60 printed pages?

If 6 is $\frac{2}{3}$ of some number, what is $\frac{1}{3}$ of 3 times the number?

A man having $\frac{2}{5}$ of a barrel of flour, bought $\frac{3}{4}$ of a barrel; how much had he then?

$\frac{4}{5}$ of B's money, increased by the difference between $\frac{3}{5}$ and $\frac{3}{4}$ of his money, equal 190 dollars; required, his money.

JANUARY.—DECIMAL FRACTIONS.

NOTE.—The only point in decimal fractions is the *decimal point*. The other principles are the same as in simple numbers.

1. Notation and numeration. Drill! Be thorough!!

2. Location of the decimal point in addition and subtraction.

3. Learn the rule *verbatim* for multiplication and division.

4. Change a decimal fraction to a common fraction.

5. Change a common fraction to a decimal fraction.

6. Difference between a decimal and a common fraction.

Pupils should write promissory notes at this stage; they should be able to make out bills and receipt them.

A good exercise to test the pupil's ability to point correctly in decimals, is to pass the class to the board; have all arrange a given divisor and dividend in the form for division; thus:

25)625(

Pass quickly from one pupil to the other, and place the decimal point at as many different places as you may have pupils in the class. Ask all to solve and point quotient, giving reason for the same.

The law of *increase* and *decrease* of the places from units may be nicely illustrated by this plan:

1000.
100.
10.
1.
.1
.01
.001

By careful explanation the pupil can be led to see that the law is uniform with that of whole numbers.

How many letters will it take to write .008 in words?

Write the smallest decimal that can be expressed by the figures 0, 7, 5 and 1.

Write the smallest decimal that can be expressed by 0, 0, 1, 2, 5, 3 and 9.

Express ½ of one hundreth as a decimal.

How many tenths in 50 hundredths?

How many thousandths in 2 units.

Find the difference between the two smallest decimals that can be expressed by 9, 8 and 2.

Find the difference between .05 and .025.

How many cents are 2600 mills? How many dollars?

How are thousandths changed to hundredths? Hundredths to tenths? Tenths to units?

How are units changed to tenths? Tenths to hundredths? Hundredths to thousandths?

Change .4 and .05 to thousandths; .07 and .01.

What is the common denominator of .3 and .05?

Change .05, .08, and .023 to equivalent decimals, having a common denominator of 1000.

How many halves in $\frac{5}{10}$? in .5? in $\frac{50}{100}$? in $\frac{500}{1000}$?

How many cents in ½ dollar? how many hundredths?

Find the sum of $2.5, $3, $6 and $7.5.

Which is the greater, 30 c. or $.3?

Add the following:

(a.) .321; 4.005; 32.062; 5.121; .005; 0006.

(b.) 82; 2.05; .025; 3.2; .001; .0051; 3.215.

(c.) 625; 300; .003; .625; 5.051; .5105; .256.

(d.) 3.5; 21.06; 191.04; 312.005; .05; .006; 9.

Find the difference between the numbers in these exercises: 32.05—9.005; 1.1—.11; 11—.0011; 925—925.

What is the difference between $.50 and $.25?

What is the difference between $.50 and $.75?

A farmer gave 20 sheep worth $65.50, 3 cows worth $100, and 2 tons of hay worth $28.75, for a horse, and afterwards sold the horse for $200; how much did he make or lose by his trades?

What is the value of \$5263.5—\$4236.40+\$278.80?

How many 4ths in .25? Fifths in .20?

How many 20ths in .60? In .80?

Change the following to equivalent fractions in their lowest terms: .16; .125; .625. \$.75; \$.375; \$.655; \$.875; .024; .5625; .3125; .0008; .9375.

Reduce to equivalent decimals:

\$$\frac{3}{4}$.	\$$\frac{5}{16}$.	$\frac{14}{25}$.	$\frac{49}{125}$.	$\frac{25}{32}$.	$\frac{2}{3}$.	$5\frac{1}{3}$.
\$$\frac{7}{8}$.	\$$\frac{2}{5}$.	$\frac{97}{160}$.	$\frac{7}{6}$ of $\frac{3}{5}$.	$2\frac{1}{20}$.	$\frac{3}{7}$.	$6\frac{1}{11}$.
\$$\frac{4}{5}$	\$$\frac{3}{4}$.	$\frac{1}{320}$.	$\frac{1}{20}$ of $\frac{16}{25}$.	$3\frac{1}{4}$.	$\frac{5}{9}$.	$7\frac{1}{10}$.

Find the value of the following:

$3\frac{1}{2} \times 2\frac{1}{4}$	$10\frac{1}{3} \times 4\frac{1}{5}$	$10\frac{1}{4} \times 2\frac{1}{2}$	$25\frac{1}{2} \times 2\frac{1}{2}$
$4\frac{1}{4} \times 3\frac{1}{3}$	$3\frac{1}{2} \times 5\frac{1}{4}$	$18\frac{1}{8} \times 3\frac{1}{3}$	$32\frac{1}{2} \times 3\frac{1}{5}$
$2\frac{1}{9} \times 2\frac{1}{5}$	$12\frac{1}{3} \times 2\frac{1}{9}$	$15\frac{1}{5} \times 2\frac{1}{4}$	$45\frac{1}{4} \times 1\frac{1}{2}$
$3\frac{1}{8} \times 8\frac{1}{3}$	$18\frac{1}{4} \times 10\frac{1}{2}$	$23\frac{1}{2} \times 2\frac{1}{2}$	$32\frac{1}{7} \times 3\frac{1}{3}$

Find the cost of 4325 lbs. coal at \$5.75 a ton.

Of 6984 pounds of coal at \$4.85 a ton

Find the cost of 8463 feet of lumber at \$27.35 per M.

Find the cost of 945 pounds of pork at \$6.48 per cwt.

Find the cost of 6225 bricks at \$8.25 per thousand.

Find the cost of 3250 lath at 18½ c. per hundred.

Divide .012261 by 2.01.

Find three numbers less than 125 which are multiples of both 12 and 18.

Find the least number of soldiers that can be divided into companies of 16, 30, 48, 56, or 72.

A turkey weighing 9½ lbs. cost \$1.33, what should one cost that weighs 14½ lbs?

Three persons, B. C. and D., bought a city lot for \$10,400, of which B. paid \$3,200, C. \$2,400, and D. \$4,800. What part of the lot belongs to each?

Find the price of each, if 125 bushels of oats cost \$62.50.

If 35 lbs. of sugar cost $2.80, what cost 1 lb?

If 396 lbs. of sugar cost $44.748, what will 1 lb cost?

Find the value of $1.12 \times 5 \div 14$.

What will 24 table books cost at 12½ cents each?

How many barrels at $.50 can be bought for $213?

What the cost of 8 pounds of tea if 1 pound cost $.62½?

At $.42 a pound, how much wool may be bought for $80,745?

I bought 1,200 bushels of corn at $.56¼ and sold 375½ bushels of it at $.60. At what price must the remainder be sold to gain $168.675 on the whole?

A barrel of beef which cost $18.75 is retailed at 12½ cents a pound. What is the profit?

Find the total weight in pounds of: (a) 3 tons of hay and 2 tons of straw. Of 24 ounces of iron and 32 ounces of lead. A barrel of beef and a barrel of flour. A cental of oats and a bushel of corn. 3 bushels of wheat and 4 of barley.

Practice on some good form for a note. The following will serve as models:

$200. BLOOMINGTON, Ill., July 1, 1885.

Three years after date I promise to pay.....
James L. Warren,.....or order,
Two hundred————————————Dollars,
at 8 % interest. Value received.

RICHARD ROWE.

$320.50. DECATUR, Ill., June 25, 1885.

Thirty days after date, I promise to pay.....
Charles D. Ward,.....or bearer,
Three hundred twenty————————$\frac{50}{100}$ Dollars,
at Decatur National Bank.

Value received, at 8 % interest.

J. N. DONAHEY.

Explain the difference between the two notes. Have pupils to write out carefully these forms. If possible, secure some blank forms at the bank, of notes and checks; show these to pupils; explain them, and see that your pupils are able to fill them out properly.

Is the maker of a note bound to pay if demand is not made on the day of maturity?

Is a note written with lead pencil good?

When is a note due if dated January 31 and made payable in one month?

If a note falls due on Sunday, when is it legally due?

Write a check to draw money from your own bank.

Are the words "value received" necessary in a note?

What is the difference between the words "with interest" and "with interest at 7 %" in the value of a note?

If a note lacks the words "with interest," will it draw interest? If so, when? If not, why?

TRANSACTION.—Quincy, Illinois, August 5, 1884. R. W. Dewey gives A. Adams an order on W. Downing & Co. for $25, to be paid in goods from his store.

Write the order.

Adams gives Dewey a receipt. Write it.

TRANSACTION.—Chicago, Illinois, June 1, 1884. J. V. Farwell borrows $4,500 from Marshall Field, and gives his note at ninety days in payment.

Write this note. Make it payable to bearer.

When will it be due?

How many miles will a boy walk to plow 6 acres, turning a furrow of 9 inches?

If a merchant sell $\frac{3}{4}$ of an article for $\frac{4}{8}$ of its cost, what % does he gain?

What is the least number of even bushels of grain can be measured by a 3-quart, peck, or a 5-gallon measure?

FEBRUARY.

Review if thought best; if not necessary take up the October work for the Advanced Division. Do not neglect practical problems in lumber trade, in avoirdupois weight, etc.

Turn to any or all problems not understood and have pupils solve and explain until the principle is fixed in the mind. If thorough work is done, the class should take up percentage, and push on to such point as the teacher's judgment may dictate.

The examination for this month should be made up of practical problems, closing with decimals.

The teacher will use his judgment as to work for other months.

PRACTICAL ARITHMETIC.

We know of no better plan for securing good problems than the following; try it:

STATEMENT.—This room is —— by —— by —— feet. The lot is —— by —— rods. The door is —— rods from the stile.

1. How many feet in compass is the room?
2. How many feet of flooring in it?
3. How many squares of plastering in it? No reductions. Why?
4. The compass multiplied by the height will produce what? Explain why the length multiplied by the width will produce square units. What is the unit of measure?

5. A crayon box is —— by —— by —— inches. How many will the room hold? How many crayons in a box? How many in the room?

6. How much wheat will the room hold?

7. What would the wheat be worth at 95 cents per bushel?

8. Which is the heavier, corn or wheat? (By the bushel.)

9. How many brick could you lay on the floor? How many would lie edgewise? How many stand on end?

10. How many could you place in the room? What their value at $—— per M?

11. How many cubic yards of sand will the room hold?

12. The walls of the room are —— inches in thickness. What area does the house occupy?

13. What is meant by area? By linear measure? By dimension? By solidity? Is a volume of air —— by —— by —— feet a solid?

14. The blackboard is —— by —— feet. How many square feet does it contain? Has area any depth? Why?

15. How many square rods in the lot? How did you determine this?

16. Posts are placed —— feet apart. How many are used to the panel? What is a panel? What are the dimensions of a fencing plank? The contents?

17. How many posts are used in fencing the lot?

18. The fence is five boards high. How much lumber in it?

19. Make out and receipt bill for the lumber at $—— per M.

20. Write an order for the posts and lumber.

21. The walk is —— feet wide. How much lumber in it? Sleepers are —— by —— by —— inches and lie "lengthwise."

22. How do nails run in number? Why these names? If there are ten nails to each post, how many are necessary to fence the lot?

23. What is the present market value of nails (retail)?

24. Give retail price of saw and hammer for building fence. Are other tools needed? If so, what? Give cost.

25. Make out bill for above tools in favor of your teacher. Receipt if you can.

26. What will be the probable cost of a pump for the well? Is it a lifting or a force pump? State difference.

27. The well is —— feet in depth and —— feet wide. How much earth has been removed?

28. What is the greatest height that a lifting pump will convey water? Why?

29. How many brick will wall the well? (Approximate.)

30. How many barrels of water will the well hold?

31. Three farms contain 78, 102, and 114 acres respectively; what is the least number of fields, each containing the same number of acres, into which they can be divided?

32. ———— can walk up and down a certain street in 5 minutes. ———— in 6 minutes, and ———— in 8 minutes; what is the shortest time they will have to walk in order to be together again at the starting point? (All starting at the same time.)

33. What will ½ of 15½ cords of wood cost at 8½ dollars per cord? Make out bill.

34. How many brick will pave a 6x40 foot walk?

35. A rigger has 3 pieces of rope, one 45, one 75, and one 105 yards long, which he desires to cut into the longest possible equal lengths; what must be the length of each piece?

36. A real estate agent has 4 lots of ground containing 1,920, 2,880, 3,840 and 4,800 square feet, respectively, which he desires to divide into the largest possible building lots of the same size. What number of square feet will each lot contain?

37. In a school building the grammar department contains 120 pupils, the intermediate department contains 160 pupils, and the primary department contains 200 pupils. Into how many classes can each department be subdivided so as to have the greatest possible equal number in all the classes?

38. I buy a coat for $12¼, a hat for $2.62½, a pair of shoes for $8½, a cane for $1.12½, and a collar for 6¼ cents; how much do they cost in all?

39. If a man rides twice a day in a street car at 6¼ cents a trip, in how many days will his car fare amount to $10?

40. What is the value of an acre of land at 15 cents a square foot?

41. What is the entire cost of 9 gross of pencils at 37½ cents per dozen, 18 dozen copy books at 15 cents apiece, and 25 primers at 12½ cents each?

42. A bookseller exchanges 12 dozen books at $1.50 each for others at 62½ cents each; how many of the latter does he receive?

43. A man owned a tract of land containing 1,200 acres; he gave to each of his 3 sons a farm of 339 acres, 126 square rods; how much had he left?

44. A miner had 6 lb. 9 oz. 4 pwt. of gold in one package, and 9 lb. 17 pwt. in another; what is the value of the whole, at 90 cents a pwt.?

45. How many eagles can be coined from 13 oz. 8 pwt. 8 gr. of gold of standard fineness, if one eagle weighs 10 pwt. 18 gr.?

46. If 30 cars are required to carry 289 T. 6 cwt. 70 lb. of freight, what is the average load in each car?

47. Make out and receipt a bill for the following items bought by ———, July 8, 1877, from ———, 3 lb. coffee at 35 cts. per lb., 3½ lb. mackerel, at 12½ cts. per lb., 25 lb. flour at 4½ cts. per lb., 3 qt. kerosene, at 17 cts. per qt., and 12⅛ lb. ham, at 16 cts. per lb.

48. The longitude of Rome is 12 deg. 27 min. east, and Baltimore is in 76 deg. 3 min. 39 sec. west longitude; what is the difference in time?

49. When it is 12 o'clock, noon, at Boston, it is 44 min. 14 sec. past 4 p. m. at Greenwich, England; what is the difference in longitude?

50. $\frac{7}{10}$ of a saw mill was valued at $3,160.50; what was the whole value?

51. Change 66⅔ divided by 100 to a simple fraction in its lowest terms.

52. Add 3⅔ divided by 14⅔ and 5⅑ divided by 15⅓.

53. Subtract $124\frac{5}{9}$ from the sum of 636 2-5 and 108⅔.

54. Multiply $754\frac{5}{18}$ by 36¼. 212¾ by 16⅙.

55. Divide $754\frac{5}{18}$ by 36¼. 212¾ by 16⅙.

56. A merchant owning ¾ of a vessel sold ⅔ of his share for $4,000; what was the vessel worth at that rate?

57. How much flour at $8\frac{1}{4}$ per barrel, must be given in exchange for 250 tons of coal, at $4.12\frac{1}{2}$ per ton?

58. A owns 3-10 of a stock of goods, B owns 1-5, and C the rest; what part does C own?

59. The sum of two numbers is 112 19-20, and the less number is 48 1-9; what is the greater?

60. From a vat containing $224\frac{1}{2}$ gallons, 6 barrels were pumped out; how many gallons remained?

61. Reduce the following fractions to their least common denominator: $\frac{2}{3}$, $\frac{3}{4}$, $\frac{5}{9}$, $\frac{6}{11}$, $\frac{7}{13}$ and $\frac{8}{21}$.

62. A merchant had 900 bags of coffee; he sold $\frac{5}{6}$ of them at $37\frac{1}{2}$ per bag, and the remainder at $40 per bag; what did he receive for the lot?

63. If a coal mine produces 30,000 tons of coal in $\frac{3}{4}$ of a year, how much will it produce in the entire year at the same rate?

64. A merchant employs an agent to collect bills amounting to $514.62. The agent retains $\frac{1}{20}$ of the amount; how much does the merchant receive?

65. How many cubic inches in a cistern holding 3,874.75 gallons; a gallon containing 221 cubic inches?

66. What will 30.35 square yards of land cost, at $5.625 per sq. yd.?

67. If a horse can trot a mile in $3\frac{1}{8}$ minutes, how many miles can he trot in 18.75 minutes?

68. At the rate of 26.25 bu. to the acre, how many acres will it require to produce 144.375 bu.?

69. Reduce 51.425 sq. yd. to sq. rd.

70. Reduce $\frac{3}{6}\frac{1}{3}\frac{9}{8}$ first to a decimal, and then to its lowest terms.

71 What decimal part of 84 is 63?

72. A farmer has a bin whose capacity is 64,512.6

cu. in.; how many bushels of wheat will it hold. if one bushel contains 2150.42 cu. in.?

73. How many rods in 302.445 yards?

74. A merchant has 1936, and 75 hundredths dollars in one bank; 2450, and 5 hundredths dollars in another; and 616, and 25 hundredths dollars in a third He pays a note of $800.37; how much has he remaining in bank?

75. If the fare from Philadelphia to Pittsburg is $9¼, what is the rate per mile, if the distance is 354.125 miles?

76. How many trees are there in $1\frac{1}{16}$ acres of woodland, each tree occupying on an average 30.25 square yards?

77. What must be given for 9 lb. 6 oz. 17 pwt. of gold, at the rate of $.925 per pwt.?

78. The meter is equal to 39.37079 inches; how many meters in ⅝ of a mile?

79. When $4.8665 is the value of a pound sterling, how many pounds sterling can be purchased for 1000 dollars?

80. A cubic foot of water weighs 62.5 lb.; what is the weight of the water in a hogshead containing 63 gallons?

81. Bought a carriage for $250, and sold it for $\frac{125}{100}$ of what it cost me; how much did I gain?

82. Bought 6.25 reams of paper, at $3.75 per ream, and sold it for 1 cent a sheet; how much did I gain?

83. If I pay $.02¼ tax on each dollar, what do I pay on my house, which is valued at $2500?

84. If it requires 12 buttons to trim a coat, how many coats can be trimmed with 5.5 gross?

85. How many dresses, each containing 18.125 yards of muslin, can be made from 90⅝ yards?

86. The sum of two numbers is 127⅞ and the less number 49.12; what is the greater?

87. The product of two numbers is 5, and one of the numbers is .0025; what is the other?

88. The divisor is .0025, the quotient is 2000; what is the dividend?

89. A miller has a bin, the capacity of which 128 cu. ft,; if the bin is filled with wheat, what is its value, at $1.12½ per bushel?

90. A 15-acre field yielded 26.25 tons of hay the first year, and 13.125 tons the second year; what was the average yield per acre for both years?

91. There are three piles of wood, containing 219.25 cords, 83.5 cords, 172.25 cords respectively; in how many loads can it be hauled, if each load is ¾ of a cord?

92. The sum of three numbers is 125, and two of the numbers are 11⅜ and 76.1; what is the other?

93. If the S. E. ¼ of section 16 be sold at $50 per acre, what its value?

94. If the S. W. ¼ of the S. W. ¼ yield oats at the rate of 40 bu. to the acre, how much should the whole section yield at this rate?

95. How many steps of three feet each in walking around a section?

96. A lot of 42 hogs average 250 lb. each; what their value at $3.75 per cwt.?

97. If a cow eat 1½ tons of hay in a given time, what the value of hay at $7.25 per ton, for 15 cows, same time?

98. How many cubic yards of excavation in a cellar 12x16x6 ft.?

99. How many yards of paper will cover the walls of a room 16 by 24 by 8 ft.? (Paper ¾ yd. wide.)

100. What is the value of 8 tons of coal at one mill per lb.?

The above list of one hundred problems will serve to illustrate the character of examples to be supplied by the teacher, from day to day.

Take cardboard or foolscap paper, cut it into imaginary lots (land) of different shapes; place dimensions on the several sides, distribute to class for solution.

Apply same suggestion to the different parts of the house, requiring cost of plastering, roofing, etc. Total footings to equal cost of house.

LANGUAGE.

Books.—Text in hands of Fourth Reader.

Object.—To prepare pupils for the grammar course in the Fifth Reader Division, and to teach them how to write correctly.

Time.—One to two years.

Owing to the fact that no good division of work for the school year will be uniform with the limits of the several authors, none is attempted here. Authors are not agreed as to the treatment of the text, and all do not grade their lessons upon the same principles; hence it is impossible to outline a definite course for this department.

The best plan will be for the County Superintendent to fix the limits of his examination to a given topic, or page in the book adopted. If no book is in general use, then there should be a distinct understanding as to the book to be used for the county. This will save the trouble of making many sets of examination questions for the several schools. It will make the work uniform,

and prevent the mixing of texts by those who remove from district to district; it is certainly economy to do so at once.

If the county is not under supervision, the next best thing will be to enlist the united action of the schools of a township upon this subject; by mutual agreement, a township may inaugurate a plan of work, that may reach the whole county.

If this cannot be done, as a last resort, the teacher should have independence enough about him, to attempt the organization of a class in language. Should circumstances be such that he cannot accomplish this, let him purchase a modern text on language, and let him start an oral class in this subject with the text as a guide. By all means teach the pupils how to speak and write.

The teacher should use some well graded text as a guide in the primary division. This should be done in order to avoid giving pupils work beyond their capacities, or in irregular order. Some little book adopted as the outline for the city schools is best, and will offer more valuable suggestions than the teacher's professional library.

EXAMINATIONS IN LANGUAGE.

Examinations should be held in this division of grammar work, as in all other grades. They should be furnished by the county superintendent, provided the county is subject to his supervision; in States having County Examining Boards, the same plan can be carried out.

In counties having no supervision, a committee might

prepare the examinations, and in the case of a township mentioned above, a committee could readily do this work; if this falls upon the teacher alone, he should have regular examinations of his own.

LANGUAGE HELPS.

Suppose you have this picture in the reader, or some other book; from this you may have such a lesson as the following for the *Second* and *Third* Reader classes:



Enough work is here given for several lessons.

1. Write the names of the following objects in a column:

a. Of what the girl has on her head.
b. Of what she has in her hand.
c. Of what she has upon her right arm.
d. Of what she has under her left arm.
e. Of what she has upon her right foot.
f. Of what the little boy has in his right hand.
g. Of what the large boy has in his left hand.
h. Of what he has upon his shoulder.
i. Of what he has fastened to this.
j. Of what is near his foot.

k. Of what grows upon the rock.
l. Of the house.
m. Of what the boy is looking at.
n. Of what the boy has in his basket.
o. Of what he has in his right hand.
p. Of the place where they are going.
q. Of that which is seen farthest in the distance.

2. In a second column write these names so as to denote more than one.

3. Build a sentence for each question, thus:

The girl has a hat upon her head.
She has a basket in her right hand.
The boy's hand is upon her arm.
She has a book under her left arm.

Continue this through the list.

Inspect the slates carefully. Go slowly and pleasantly; talk of the pictures until they are understood, then have the writing done.

4. Have pupils write statements containing these names in the plural number; thus:

She has baskets in her right hand.
The boy's hands are upon her arm.
She has books under her left arm.

Continue this through the list.

5. Write statements in answering the following questions:

How old do you think the little boy is?
Where are they going?
Which is the taller, the boy with the book and basket, or the boy at the door?
What has the girl upon her feet?
Is it summer or winter?
What is the name over the door?
What do you see in the sky?

Continue at pleasure. Inspect the slates carefully. See that the period is used.

6. Erase the questions from the board and require the children to change their statements to questions, using the proper mark.

7. When the work is well done have pupils write a story about the children getting to the school before the door was opened.

8. Have them write a story about the girl and the two little boys being tardy. Have them name the children and write a story about gathering nuts or some fruits.

Show the children about paragraphing their stories; the use of capital letters; punctuation.

9. Make up lists of adjectives applicable to the names found, and have pupils so use them, thus:

new ——	old ——	large ——	small ——
white ——	rough ——	black ——	smooth ——
leather ——	wooden ——	plowed ——	blue ——

10. Rewrite the same thing upon your slates, using *a* or *the* as seems appropriate.

Teacher will inspect with care.

11. Write something about a { Boy. / Girl. / Book. / Shoe. / Basket. / Hat. / School. / Rock. / Coat. / Bush. / Door. / Hand. / Hill.

By a little reflection the teacher may save board space by some such forms as the above.

12. Change each statement to a question.

13. Complete the sentence:—

A boy
A girl
A book
A shoe
The basket
The hat
A school
The rock
A coat
The bush
A door
The hand

14. Complete same by writing the name so as to mean more than one.

The above is sufficient to indicate what may be done in this direction; of course the teacher can carry this forward until he completes the composition; after sufficient preparation close with the complete composition, which fill for reference.

"GOING TO SCHOOL."

- Subject of picture.
- Location of school.
- Time of year.
- Time of day.
- Children not tardy.
- First group.
 - Timid brother.
 - Classmate.
 - Kind sister.
- Second group.
 - Brother.
 - Sister.
- Third group.
 - Brother.
 - Sister.
- Surrounding objects.
- Love for the school.



Treat the above picture in a similar manner to the preceding, finally closing with the composition.

Such a picture can be used in any of the classes and is quite appropriate for the Fourth Reader class or the Intermediate Division.

Where can I secure such pictures? the teacher asks.

From specimen pages of school readers, from the pupil's books, from tourist's guides, from geographies, from histories and from numerous sources.

These pictures may be pasted upon cardboard, and will serve for the purpose intended for many terms.

In the language work of the Primary Division, the pupil has learned to use correctly the singular and plural forms of the words in the given lists; also, of *is* and *are*, and other similar verbs, together with the use of *this* and *that*, *these* and *those*, etc. He has also learned to use capitals in writing the names of *persons*, of *places*, of *days*, of *weeks*, of *months*, I and O, and to place a period at the end of every telling or commanding sentence, a question mark after every asking sentence, etc.

A careful review of all this will prepare him for the succeeding work.

I.

The teacher walks across the floor.

"What am I doing?"

"You are walking."

Teacher (walking slowly): "How am I walking?"

Most of the pupils will say: "You are walking slow."

Obtain the correct answer, then ask, "What kind of walking is this?" "That is slow walking." "How am I walking?" "You are walking slowly."

Contrast as strongly as possible the correct use of the adjective and adverb in a similar manner. Have the pupils perform actions, telling what kind of actions and how performed.

Make use of actions using the following words:

bold	boldly	sweet	sweetly
bright	brightly	beautiful	beautifully
neat	neatly	careful	carefully

nice	nicely	graceful	gracefully
quick	quickly	diligent	diligently
quiet	quietly	rapid	rapidly
soft	softly	studious	studiously
sharp	sharply	terrible	terribly
smooth	smoothly	handsome	handsomely
slow	slowly	wicked	wickedly

Fill each blank with the proper word:

1. A monkey is a —— animal.
2. The monkey acts —— ——.
3. The sun shines ——.
4. These flowers smell —— ——.
5. The freight train moves ——.
6. An —— boy learns his lesson ——.
7. The squirrel is a —— animal.
8. The squirrel moves —— ——.
9. He is —— an honest man.
10. Did you notice how —— he walked?
11. The bird sings ——.
12. The horse ran —— away.
13. How —— that man works!
14. The rabbit ran ——.
15. He speaks ——.
16. The book is —— torn.
17. The man ran —— across the field.
18. The ox walks —— but the horse —— ——.

The teacher will continue these suggestions, writing lists of words from the vocabularies given until the pupil can use correctly in both oral and written sentences all the common derivatives ending in *ly*.

II.

Let Mary stand. Ask class who is standing. Mary is standing. Ask Mary. "I am standing." Let Emma and Mary stand. Ask Mary who are standing? "Emma and I are standing." Ask Emma. "Mary and I are standing." Repeat the same with Charles and Frank. Succeed, in this way, in bringing out:

I am standing.
Mary and I are standing.
Frank, Lucy and I are standing.
You, Claude and I are standing.
You, James and Joseph are standing.
They and I are standing.
You, they and I are standing.
You are standing.
He is standing.
She is standing.
It is standing.
He and she are standing.
He, she and it are standing, etc.

Bring out also the use of or and nor; as, He or I will stand! "Neither he nor I am standing."

Use also in connection with *is* and *are*. In the same manner, ask "*who* is it that is standing," and bring out "It is I who am standing," etc.

III.

Let John get his hat, and hold it in his hand before the class.

What does John do? He holds his hat. Let him put it away. What did John do? He held his hat.

Let George have a stick. If you want two pieces of that stick, what must you do? Break it.

George breaks the stick.

"What did he do?" "Broke it."

"Tell me so." George broke the stick.

Teacher holds up the two pieces. "What has George done with this stick?" "Broke it." "Tell me so."

"George has broke the stick."

"That does not sound right."

Proceed in this way until you succeed in getting the correct answer. Have pupils repeat break, broke, broken, very distinctly, and write the words on the board. Then ask questions similar to these:

How many ever broke anything, and when?

How many have ever broken anything?

What had George done to this stick when I showed you two pieces?

Did George break the stick?

Yes, George broke the stick.

Did Mary break the dish?

In this way a long list of questions may be written on the board, requiring pupils to write the answers on their slates. Be very sure to look over all the written work, and notice every mistake. Do but little at a time and that thoroughly.

The following form will be suggestive of what can be done in giving the correct use of verbs in their different forms. The teacher can expand this to suit his pleasure. It may be used with good results:

What do I?	What did I?	What have I done?
I break	I broke	I have broken
I bite	I bit	I have bitten

I bring	I brought	I have brought
I begin	I began	I have begun
I blow	I blew	I have blown
I buy	I bought	I have bought
I come	I came	I have come
I catch	I caught	I have caught
I choose	I chose	I have chosen
I cut	I cut	I have cut
I drink	I drank	I have drunk
I draw	I drew	I have drawn
I do	I did	I have done
I drive	I drove	I have driven
I eat	I ate	I have eaten
I fly	I flew	I have flown
I forget	I forgot	I have forgotten
I feed	I fed	I have fed
I fall	I fell	I have fallen
I give	I gave	I have given
I go	I went	I have gone
I grow	I grew	I have grown
I hang	I hung (?)	I have hung (?)
I hide	I hid	I have hidden.

Teach in this way the correct forms of:

bind	stand	take	begin
bleed	shake	tear	bend
build	see	think	blow
burst	strike	throw	choose
dig	say	teach	creep
feel	sit	tell	do
fall	sell	cleave	draw
fight	send	tread	eat
grind	set	drive	feed

hold	shine	strive	find
hurt	shoe	bite	fly
hear	short	hide	forget
keep	show	slide	freeze
kneel	shrink	shake	get
hit	shut	come	give
know	sink	catch	go
leave	slay	buy	grow
lose	spring	bring	hide
lie (to recline)	stay	seek	lend
lead	stick	write	lose
meet	string	wear	mean
make	swear	weep	mow
read	swim	wet	prove
pay	sing	win	weave
ride	sleep	wind	wring
rise	speak	wing	
run	slide	swing	
ring	steal		

Make simple sentences by placing the name of the proper animal before each verb in this list:—

bark	cluck	hum	quack
bay	chatter	howl	roar
bleat	cackle	hiss	sing
bray	chirp	hoot	snarl
buz?	drone	low	screech
baa	drum	moo	squeal
crow	gobble	moan	squeak
caw	gabble	mew	scream
coo	grunt	pipe	twitter
croak	growl	purr	whistle
bellow	whinny	neigh	yelp

Name something that each of the following does:—

Bees	Eagles	Geese	Sheep
Bears	Birds	Girls	Snakes
Boys	Flies	Goats	Swallows
Bulls	Frogs	Monkeys	Thrushes
Cats	Fowls	Owls	Toads
Cows	Hens	Oxen	Sparrows
Chickens	Horses	Parrots	Wolves
Children	Hogs	Pigs	Wrens
Dogs	Lambs	Peacocks	Rabbits
Doves	Lions	Robins	Quails
Ducks	Mice	Larks	Squirrels

Practice on the correct spelling of such expressions as *John's hat*, the boy's book, etc., until there shall be no longer need to do so. Do this with both singular and plural nouns.

Select a short easy story, let the bravest pupil get up and read it before the class, then close the book, and repeat what he remembers of it. Let class give what he fails to remember. In short time have this written.

Letter writing should be taught at this time. A child's letter is, of course, a very simple affair, but it may be correct in form, and the sentences correctly arranged.

Have pupils to practice on the plurals of the following words until they are thoroughly learned:

face — faces.	nose — noses.
fish — fishes.	rose — roses.
dish — dishes.	mass — masses.
stage — stages.	vase — vases.

Add other words to these until pupils know the words having *es* in the plural.

Lead the pupils to see the reason for the following:

lady	ladies	toy	toys
army	armies	boy	boys
lily	lilies	monkey	monkeys
baby	babies	chimney	chimneys
pony	ponies	key	keys
sixty	sixties	valley	valleys
glory	glories	essay	essays

Continuing the list at pleasure, add also the following, in the same way:

calf	calves	bluff	bluffs
elf	elves	cuff	cuffs
half	halves	chief	chiefs
knife	knives	dwarf	dwarfs
leaf	leaves	fife	fifes
loaf	loaves	hoof	hoofs
life	lives	grief	griefs
shelf	shelves	muff	muffs
staff	staves	staff	staffs
self	selves	strife	strifes
sheaf	sheaves	proof	proofs
wharf	wharves	wharf	wharfs
buffalo	buffaloes	alto	altos
cargo	cargoes	cuckoo	cuckoos
calico	calicoes	canto	cantos
echo	echoes	domino	dominos
hero	heroes	embryo	embryos
mosquito	mosquitoes	halo	halos
motto	mottoes	octavo	octavos
negro	negroes	piano	pianos
potato	potatoes	solo	solos

tornado	tornadoes	two	twos
torpedo	torpedoes	trio	trios
volcano	volcanoes	zero	zeros

The following nouns have only the plural forms. Use them in sentences until the pupils become perfectly familiar with them:

ashes	nippers	scissors	victuals
bellows	measles	shears	trowsers
clothes	pincers	snuffers	thanks
eaves	goods	tidings	tongs
mumps	riches	vespers	billiards

The teacher in all of the work will teach the correct use of punctuation, by having the pupils punctuate correctly. Learn but few rules, but put all you learn, and more, into practice daily.

In letter forms be very explicit. Have pupils practice a great deal on the proper headings, introductions, body, closing terms and signature. Teach them neatness. Give a number of forms illustrating these different parts. Write a model letter.

Decatur, Illinois,
June 3, 1885.

Mrs. Helen Read,
Washtenaw, Michigan,

Dear Madam:—Your letter inquiring the whereabouts of your beloved boy, James, is at hand. He is at present employed in the wagon manufactory here. He seems to be doing well. He comes to our office often. I have shown him your letter and asked him to write to you.

Very truly,
L. L. Hayworth.

Chicago, Illinois,
June 1, 1885.

My Dear Mother:

Your dutiful son,
James.

New Orleans, Louisiana,
December 24, 1884.

My Dear Friend:

Yours truly,
Joseph Trenchard.

813 Chestnut Street,
Philadelphia, May 10, 1885.

Messrs. D. Lothrop & Co.,
Franklin & Hawley Sts.,
Boston, Mass.

Gentlemen:—

Very Truly,
Robert Coleman.

Select the names of relatives, strangers, merchants, publishers, etc., and write letters to them.

Proceed slowly and carefully in the composition work for the beginners in this Division. It is believed that if the work in language has been faithfully performed, the writing of compositions will present no more difficulty to the pupil than the recitation or study of a lesson in reading or any other branch. Before begin-

ning the written composition on any subject, the teacher should give one or more oral lessons, bringing out all the points to be written about. Then, and not till then, allow the pupil to write upon the subject. Select some picture for composition; thus, from a well known picture we may arrange such a composition as the following:

EXERCISE IN COMPOSITION.—Combine each group of sentences so as to form one sentence; then unite the whole to form a continuous narrative.

1. A hunter was on his way home.
 He was crossing a field.
 He saw a large lion.
 The lion was close by, watching him.
2. The hunter exhausted his supply of bullets.
 He knew he could not escape by running.
 He looked about for a safe hiding-place.
3. The field was bare.
 It offered no protecting retreat.
 But one chance remained.
 The hunter saw this.
 It was that of deceiving the lion.
4. He crept along the ledge of a high cliff.
 He hid himself behind a large rock.
5. He then took off his hat and coat.
 He fixed them on his gun.
 He made them look like a man.
6. The hunter saw the lion approaching.
 He held the mock-man above the rock.
7. The lion made a spring.
 He sprang at what he supposed to be a man.
 He leaped over the cliff.

He was killed on the rocks below.

8. The hunter descended.
 He recovered his hat and coat.
 He found his gun shattered to pieces.
9. He looked at the lifeless form of the lion.
 He was filled with thankfulness for his own deliverance.

This should be continued until pupil can write a clear and correct sentence from a number of sentences as above.

The teacher should keep some good blackboard form in view, in all of his work, and especially so in Letter Writing in the Language work. The following order should be followed in letter writing:

The parts of a letter are
1. the heading.
2. the address.
3. the salutation.
4. the body.
5. Close.
 - Closing term.
 - Subscription.

MODEL LETTER.

Decatur, Illinois,
July 1, 1885.

Mr. A. P. Vale,
Vale's Mills, O.

Sir:—Enclosed please find $12.50, balance due on printing press, which arrived safe on Monday last.

Very truly,
E. A. Gastman.

The heading. { *Decatur, Illinois,*
July 1, 1885.

The Address. { *Mr. A. P. Vale,*
Vale's Mills, O.

Salutation—*Sir.*

Body of letter—Statement which follows after "*Sir.*"

Closing term—"*Very truly.*"

Subscription—*E. A. Gastman.*

What does the heading of a letter show?

The heading shows where and when it was written, as:

St. Louis, Missouri,
July 1, 1885.

What does the address of a letter show?

The address shows to whom it is written, and to whom it should be sent; thus:

Mr. Samuel Trainer,
Wilkesville,
Ohio.

What is the superscription of a letter?

The address when written on the envelope is called the superscription.

What is the close of a letter?

The words of esteem and the subscription.

What is the subscription?

The name of the writer.

The name signed by the writer is called the signature.

What is the salutation of a letter?

The greeting is called the salutation; as, My Dear Mother; My Dear Friend; Sir; etc.

What is the body of a letter?

All between the salutation and close.

Observe the following points in all letter-writing, viz:

1. There should be something on every letter to show,—

(a.) To whom the letter is written, and to what place it should be sent.

(b.) By whom it has been written and to what place the answer is to be sent, or the letter returned.

2. The heading, signature, address, and superscription of a letter must be very plainly written.

Let the pupil copy letters which are correct models.

The teacher in giving instruction in this, as in all of the written work, will give the pupil full instruction in regard to using capitals, punctuation marks, paragraphing, spacing, etc. Do not attempt too much at any one time, but be sure to give the pupil correct forms and insist on careful work in what you do.

The pupil should be taught the abbreviations in common use; such as those of the months, the states, county, etc.

THE HEADING OF A LETTER.

1. THE HEADING SHOULD SHOW:
 1. Where the letter was written.
 2. To whom it was written.

The heading is not always written on one line; sometimes two are used.

Grovesville, Huron County, Ohio, July 1, 1885.

This may be written:

Grovesville, Huron County, Ohio,
July 1, 1885.

Either form is correct.

If the place from which the letter is written is not very large or well known, the name of the place, county and state should be given; thus:

Greenfield, Highland County, Ohio,
June 22, 1885.

If the answer is to be sent to the same place as the address, the heading should give the full address. However, the practice of writing the full address after the subscription is fast gaining favor.

A comma should be placed after every item of the heading, excepting the last, where a period should be placed.

NOTES.—1. Do not leave out any necessary item of heading.

2. Punctuate the heading correctly.

3. Write very plainly.

ADDRESS OF A LETTER.

These abbreviations of titles are mostly used, viz:

Mr., Dr., Prof., Sr., P. M., Mrs., Capt., Esq., M. D., Jr., Sen., Agt., Hon., Messrs.

Do not use Mr. and Esq. at the same time in writing an address. Observe the same in regard to Dr. and M. D.

The address of a letter should show:

1. The title and name of a person or firm.
2. { The number of house and name of street, or
 { The name of the place.
3. { The name of the city.
 { The name of the county.
4. The name of the state.

SALUTATION.

The greeting is called the *salutation*, and is the first thing in the body of the letter; thus:

Chicago, Ill., June 9, 1885.

Messrs. Perry Mason & Co.,
41 Temple Place, Boston,
Sirs;—

FORMS OF GREETING.

1. To a strange gentleman or gentlemen: Sir, My Dear Sir, Sirs, Gentlemen, Dear Sirs.

2. To a strange lady: Madam, Dear Madam, Miss Curtis.

3. To a friend or relative: My Dear Friend, Dear Father, Dear Miss Roberts, Dear Cousin.

The salutation should be written on the line below the last item of the address.

Great care should be exercised in writing the body of the letter. Attention should be given to proper paragraphing, punctuation, capitalization, etc.

CLOSING WORDS.

The closing words should not be more familiar than the title, should always be respectful, and written with great care.

The signature should be written very plainly and should be followed by the complete address of the writer, if not given in the heading.

The address should also be written at the close if not written in its proper place immediately after the heading.

EXAMPLES:

1. *Very truly yours,*
George R. Bancroft,
845 North Mercer St., Boston.

Mr. James Julian,
No. 48 Sixth St.,
Baltimore, Md.

2. *With great respect,*
John Bear.

Your sincere friend,
Jessie Nolan.

A lady in writing to strangers, should always prefix Miss or Mrs. to her name

In writing to others about matters of more importance to you than to the person to whom you write, always enclose a stamp or postal card.

1. Why is there no period after Miss?
2. What should the heading of a letter include?
3. What abbreviations are equivalent to Dr. and Mr.?
4. Where should the stamp be placed? Show this by drawing.
5. Write upon the drawing, correctly, a superscription.

MODEL.

STAMP.

Mrs. A. H. Lehman,
Waldo,
Bourbon County. Kentucky.

STAMP.

Messrs Harper and Brothers,
Franklin Square,
New York.

1. What should the heading of a letter show?

2. Where, on a sheet of paper, should the heading be placed?

3. Why should it be written very plainly?

4. What is the address called when written on the envelope?

5. Why should the address be written on the letter as well as on the envelope?

6. Draw a picture of an envelope showing the superscription and where the stamp should be placed.

7. What is a title?

8. Write the abbreviations of the more common titles.

9. Of what use is the heading of a letter? the address?

10. What does the word subscribe mean?

11. Write the abbreviations of the days of the week. Of the months. . Of the States.

12. Write a letter to your cousin Robert giving:

1. The heading.
2. The address.
3. The salutation.
4. The body—(a) asking the loan of a book.
5. The closing term and signature.

13. Draw a diagram of the envelope, containing superscription and stamp.

Have pupils practice on promissory notes, bills, receipts, invitations, regrets, etc.

UNITED STATES HISTORY.

All persons who have taught for some terms in the country districts are fully aware of these two facts: that, to begin the study of United States history in the

heavy texts usually found in the schools, is to undertake a task which usually discourages the pupil ere he completes it, unless he is under the direction of a competent teacher; the members of the Intermediate Division not having sufficient employment to keep them busy, are inclined to give the teacher more or less trouble in the matter of discipline. These being the facts in the case, there is an actual necessity for the use of some primary history in this division.

In counties having uniformity of outlines it is well to secure the adoption of some good text in this division, and require all members of the Fourth Reader class to take up the study of U. S. history.

Since different authors are used we give the limits by topics; this accommodates all for the purpose of examinations.

October to the study of the Southern States.

November to the battle of Lexington.

December to Madison's administration.

January to Polk's administration.

February to War of Secession.

Other months at the discretion of the teacher.

NOTES.—The teacher should make out neat outlines of the daily lesson and have pupils study topically from these.

Anecdotes should be told in connection with the lesson; those having something strikingly curious are best to relate, as they have a tendency to fix some fact connected with the history of the subject under consideration.

Causes and results should be fixed upon the memory as they lead the pupil to look for definite historical events,

Biography affords an endless field for collateral reading and should be encouraged at all times.

Pupils should note all curious facts connected with their lessons, no matter where found.

Find some singular question for the pupils to answer each day; this will stimulate research.

Take a column of names and require pupils to briefly tell something of each in sucession.

Have the leading historical personages personated at different times. By this we mean, to have a pupil study a single person for some days until he can rise in class and recite the main facts in his life, giving the story in the first person.

Have poems read before the class giving some historical allusion.

Have pupils represent the generals of a campaign and require each to explain his movements.

Have pupils select their favorite characters and tell why they admire them.

Have written abstracts of certain lessons.

Have the class to write the history of a certain topic by assigning sub-topics to its members, and by placing these together when completed, filing all for reference as a history of that division of the book.

Repeat important events frequently.

Encourage pupils to ask questions of each other.

Encourage much collateral reading.

Make a memoranda of important current events. Discuss all important current history.

Search for rare historical documents, and coins of "ye olden time."

Find *fac-similes* of coins and historical papers, and exhibit them to the class with appropriate allusions.

Have a written sketch of each pupil's life to date; file these as a memento of your school work.

Select special topics for special review, and research.

Discuss the inauguration of a president and his reception by congress.

Discuss the manner of voting for president of the United States.

Discuss the manner of choosing seats in congress.

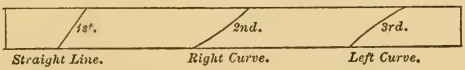
Teacher will continue this at pleasure. By all means have one year's work in history before taking the larger book. This will make the study of this subject a pleasure.

PENMANSHIP.

Many teachers in the Rural schools are neglectful of their duty when it comes to penmanship; to a great extent it has become customary to permit other recitations to crowd out and take the place of this branch; this is wrong. Penmanship should have a place in the programme, and should have its due proportion with the other branches. In counties having systematic examinations, this state of affairs cannot long exist, as the demand for definite acquirements will test the instructor's ability to teach penmanship.

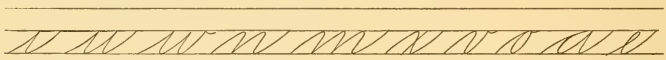
OCTOBER.

Begin at once with the three principles;

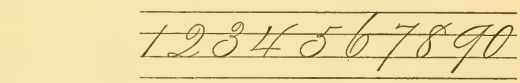


show the children how to make them; have them to

recognize them in several letters. Begin with i and study the formation and analysis of each of the short letters; thus, i is one space in height and one-half space in width; the analysis is as follows: "2nd, 1st, 2nd, dot." Continue this until the short letters are studied; write them upon the board and they will appear thus:



Have a margin of the board ruled, and filled with the lower case letters in your best hand. Place the nine digits in such ruling and practice upon one each day in connection with writing exercise. They will appear thus:



Have concert analysis of each letter as follows: i, one space in height, one-half in width; 2nd, 1st, 2nd, dot. In some manner analyze each letter in turn, thus: u one space in height, one in width; 2nd, 1st, 2nd, 1st, 2nd; or double i without dots.

It is well to practice upon a single line during the whole month. The line should be short and such as will contain several of the letters learned during the month. "Mamma, come and see," is very good for first month.

Have all practice upon the usual form for dating a letter, thus:

Wilkesville, Ohio,
July 26, 1885.

Permit all to use the pen when this can be secured.

It is customary to prohibit the use of the pen in the Primary Division, but there are advocates for its use in the First Reader.

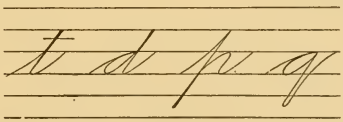
Devise some systematic plan for collecting copy books. In rural schools the teacher can usually do this to the best advantage. They should be distributed in a reverse order from their collection.

A is the only letter shaded in preceding group.

NOVEMBER.

Study the formation and analysis of t, d, p, and q, and combine these with the *short* letters.

Consider each letter separately as in the short letters. Call attention to similarity of forms, and composition; thus, t is simply i extended to two spaces in height, and having a cross one space in length, two-thirds of its length from the base line, etc. The blackboard should appear thus, when this group is completed.



Practice each letter until the form is well executed.

Select a line for practice.

Call this group the *semi-extended* letters. Use only the *three* principles. Review the short letters; practice and study the capital letters containing the capital O. (O, C, D, E, G.)

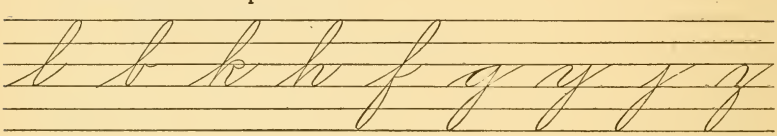
DECEMBER.

Study the formation and analysis of l, b, h, k, j, g, y, z, f, and long s.

Observe the hints and helps offered in preceding months.

Use the *three* principles only. Combine these letters with the semi-extended. Call this class of letters the *extended*. Practice and study those letters containing "the stem of beauty," as found in the capital letter M. (A, B, F, J, M, N, R, S, T.)

Select line for practice.



JANUARY.

Classify the letters into *upper* and *lower* case (capital and small); sub-divide the lower case into short, semi-extended and extended. Thus:

LETTERS— { UPPER CASE. / LOWER CASE. } { *Short*, *Semi-extended*, *Extended*. }

Practice and study those capitals (upper case) not yet studied. Let each pupil select and practice writing a short saying, or stanza, of not more than four lines, during the month.

FEBRUARY.

Let those pupils who are advanced drop out of the class, if they desire, but have them understand that the February examination will contain a review of Penmanship. Let the teacher give his class practice in such work as he may think best, but do not abandon the writing exercise.

Write and receipt bill for three articles purchased of your nearest merchant, as a specimen of your penmanship. Be certain that the date, place, name, etc , are correctly written. Take the specimen at any time.

Other months at the discretion of the teacher.

It should be remembered that constant practice with a view to improving each individual letter is the only way to perfect your penmanship.

NOTE.—The author believes that *one* copybook in the ungraded schools will be all-sufficient in the course. He has carefully studied the various systems, and believes that any author giving a complete analysis of *all* the letters in *one* book, will best serve the purpose of the examination. He also believes that, no matter what book is used, it is best to teach the *three* principles only, in the rural schools.

ADVANCED DIVISION.

COURSE AND OUTLINE OF STUDY. APPROXIMATE TIME—THREE YEARS.

STUDIES OF FIFTH READER PUPILS,
- Reading,
- Spelling,
- Penmanship,
- Language and Grammar,
- Geography,
- U. S. History,
- Arithmetic.

CLASSIFICATION.

The principles of classification applied in the two preceding divisions will be appropriate to this division. The outlines here presented clearly indicate the number of classes.

PENMANSHIP.

This branch is fully outlined in the Intermediate division.

READING.

Books—Fifth Reader and Supplementary Reading.

Object—Same as Intermediate.

Materials—Same as Intermediate.

METHODS AND HELPS IN READING.

NOTE.—Apply all the methods of utility found in the preceding pages of this book.

Remember that to pupils, many of the problems in Arithmetic are "puzzles"; that Grammar has "no sense to it," and that History is "dry" *because* they have not yet learned to *read*, *i. e.*, to gather the thought from the written or printed page. Reading is the basis of all knowledge.

Short lessons: Written work to be a paraphrase of the part assigned.

Text-book—Group the lessons according to authors, reading them successively, the pupil becoming *acquainted* with the author through the selections read, and the sketch given by the teacher. Longfellow, Bryant, Whittier, Holmes, Lowell, Reed, the Careys, Irving, Hawthorne, Miss Alcott, etc., should be studied in this way.

Pupils should know something of American authors at least, and if they do not form an acquaintance with them in their reading lessons they will never learn about them in the *common* schools.

The best possible opportunities for teaching literature, if you know it yourself, are furnished in our common readers—better than in "Literatures" themselves.

Never allow an historical, a biographical, a biblical, a scientific, or literary allusion to be passed over without being explained.

By careful questioning elicit the meaning of the more difficult phrases.

(1) New words applied in oral and written sentences.

(2) Oral abstract of the lesson.

(3) Written abstract of the lesson.

Reproduce in writing, from memory, short stories on portions of reading lessons previously read by teacher or pupil.

Good, sensible expression is all that the teacher in the common schools should attempt to accomplish.

The examination will be to paraphrase a verse or paragraph, to give the derivation of words and the meaning of prefixes and suffixes, and to write an account of the author.

Make the dictionary the constant reference.

Pupils should be taught in this grade to *recognize* simile, metaphor, hyperbole, metonymy, comparison, personification, apostrophe, climax.

Children can understand these and enjoy them. Ideas are simple, it is the clothing of language that makes them obscure.

If higher readers be in the hands of pupils, use the outline given for intermediate reading.

In teaching figures of speech do not define them, but simply have them *recognized.*

The primary object in any reader is to teach *reading.* The subject of language, in so far as concerns definitions, grammatical forms, syntatical rules, word-analysis, and sentential analysis, should of course be taught as a special exercise; and what is claimed for language training as drawn from the reading lesson is that it tests, applies, and vitalizes the learner's technical knowledge. Language in reading should embrace at least the following points:

Sentence work sufficient to familiarize the pupil with the three principal types of the sentence, *statement* (i. e., declarative), *question* (i. e , interrogative), and *exclamation* (exclamatory sentence), should be used. The nature of these kinds of sentences should be brought out in oral lessons. Classifying words so far as to be

able to identify *name-words* (nouns), *action-words* (verbs), and *quality-words* (adjectives). The pupil should be called on to select from reading lesson and copy on slate a certain number of name-words, action-words, or quality-words, and to supply same classes of words in elliptical sentences.

Changing Verse Into Prose Order.—This will be found an exceedingly interesting and valuable exercise, and the teacher should avail himself of every suitable occasion to apply it.

USEFUL KNOWLEDGE.

Our Breadstuffs.

ab-o-rigi-nes, *first inhabitants.*
curries, *hot dishes.*
kiln (kil), *large oven.*
mai-zena, *maize farina.*
O-ri-ental, *Eastern.*
stately, *lofty, majestic.*
tile, *clay plate.*
tortillas (tor-teelyaz).

1. In *maize* we have a native American cereal, as its common name "*Indian* corn" tells us. It was the chief grain cultivated by the aborigines of the New World, and was unknown in the Old World till after the discovery of the New.

2. Columbus himself brought samples of maize to Spain about 1500, and soon afterwards it began to be largely cultivated in Europe. It is now not only the principal grain-plant of North and South America, but it is largely grown in Southern Europe, and forms a leading food in many countries of Asia and Africa. It is eaten by a greater number of human beings than any other grain except rice.

3. Maize is a plant belonging to the tropical and temperate climates. It can be produced only where the summer heat lasts a considerable time. It is the hand-

somest of all the grains. Growing to a height of from six to ten feet, with its rich silken "ears" on each stem, it has a beautiful, stately appearance; and if it were not so common an object it would be prized by us as an ornamental plant, as it is in some parts of Europe.

4. Could there be a finer sight than a great field of ripening Indian corn? What a rich, generous, bountiful look it has! It seems to say, "Here is abundance for all—for man and for beast!" And it not merely *looks* bountiful, it *is* bountiful; it yields many hundred fold, and is the most productive of all the cereals.

5. We are all familiar with the many forms in which Indian corn is used as food. We eat it in the unripe state as the delicious "green corn," and we eat it roasted as the poetic "pop corn." We eat it whole as samp, crushed as hominy, ground as mush or Indian pudding, and made into starch as maizena. We eat it as corn-bread, johnny-cake, and hoe-cake.

6. The Mexican mode of cooking maize is interesting, because it was probably the very earliest. First the whole corn is soaked in water with a little lye from wood-ashes, to soften it and remove the hull. It is then crushed or kneaded into a paste upon a stone, by rubbing it with a smaller long and narrow stone. After this the dough is divided into portions, patted or clapped into thin cakes, and baked quickly on a tile. These are the *tortillas* of the Mexicans and other Spanish-Americans, and are the only bread of the common people.

7. If maize is an important grain, rice is still more so, for it supplies the principal food of one-third of the human race. Rice is an *annual* plant, from one foot to

six feet in height. The seed or grain grows on little separate stalks, springing from the main stalk; and when the grain is ripe the plant looks like something between barley and oats.

8. The cultivation of rice is most largely carried on in India, China, Indo-China, Japan, and the East India Islands. This plant needs a warm climate and a plentiful supply of water; and so, though it is not a native American grain, it can be raised in some parts of our own country. Nearly two hundred years ago the growing of rice was tried in South Carolina. It was found to do well there, and now that State yields the finest rice in the world.

9. In this country we think of rice only as an *occasional* article of food. Now and then we eat it boiled, or in the pleasant form of rice pudding; but in the East Indies it is *the* dish of all classes of people, from the monarch to the beggar. In the Oriental countries it is not only eaten boiled and in curries, but it is ground into flour from which are made various kinds of bread and cakes. Rice is a very digestible food; but is not so nourishing a grain as wheat or maize, since it contains far less of the "flesh-forming" materials.

10. Rye is of darker color than wheat, and grows in much the same way. This grain is largely cultivated in temperate climates. It may be raised in countries too cold for wheat, and in soil too poor for any other grain.

11. In this country rye is not made into bread to any great extent; though sometimes it is used with flour to make loaves, and it is mixed with Indian meal to form the "brown bread" of New England. But in Germany, Russia, and other parts of Northern Europe, it is the

common breadstuff of the people, and the bread made from it is known as "black bread."

12. In Sweden the peasantry live very generally on a kind of rye cakes. These are thin and flat, and have a hole in the center through which a stick is run, and the cakes are then hung up to dry. The baking is done only twice a year, so that for most of the time these rye cakes are as hard as a board.

13. It is supposed that barley is the most ancient grain-food of man. It needs very little dressing when sent to the mill, having no husk and hence no bran. It may be eaten without any other preparation than boiling.

14. When the outer coat of the grain is removed, it is called *pearl* barley; and in this form it is employed as a vegetable for thickening soups. This is the chief use to which we put this grain as a food. But in various parts of Asia it takes the place of wheat, and produces excellent flour, and wholesome bread.

15. The last of the breadstuffs of which we shall speak is oats. This is the hardiest of the grains, and can be grown farther north than any other of the cereals. The largest quantities are produced in Russia, Sweden and Canada.

16. In preparing oats for our use, the grain is first dried in a kiln, and then ground into oatmeal. Boiled in water, oat meal makes the *porridge* of Scotland; and in this form it is used to a considerable extent in the United States. The Scotch also use it baked into oat cakes.

17. In either form it is an excellent food, being richer in the flesh-forming elements than any other grain.

The famous Dr. Samuel Johnson once sneered at Scotchmen for living so largely on oatmeal, saying that it was the food of horses in England and of men in Scotland. But a quick-witted Scot cleverly turned the tables on the doctor. "True," said he, "and what *horses* you have in England, and what *men* we have in Scotland!"

USEFUL KNOWLEDGE.

Our Breadstuffs.

The questions upon this lesson will embrace, first, a series of simple questions which may be answered orally, and, secondly, a series of more difficult ones which will require written answers. It will be found advantageous to pursue this course very often.

QUESTIONS.—1. What is meant by "native American cereal?" 2. What is a cereal? 3. Why is America so called? 4. Why call maize "Indian corn?". 5. How did the Indians cultivate corn? 6. What is meant by corn in the bible? 7. Did people have corn in the Old World before the discovery of America?

WRITTEN QUESTIONS.—1. Tell about Columbus's discovery of America. 2. About John Smith's visit to the Indians for corn. 3. Name the cereals. 4. Define aborigines. 5. Write the derivatives of paragraphs 1 and 2. 6. The synonyms. Define the terms "Old World" and "New World." Write the words in 1st and 2d containing o͝o and ŭ ā ă ä.

These questions may be continued after this method:

ORAL QUESTIONS.—Where is corn largely grown? Is it used much for food? Where is it best grown? How high does it grow? How many ears on a stalk? How many grains on an ear? How many grains did it

take to produce the stalk? Is it profitable to raise corn? Do any people plant it for ornament? In how many different ways have you eaten corn? What is Indian pudding? How do the Mexicans prepare corn? Who are Spanish Americans? How is rice cooked? Did you ever eat any? What is an annual? How high does rice grow? What does it look like? Where is it mostly raised? Find these places on your map. Are there any countries where rice is eaten as often as we eat bread? If so, where? What are the Oriental countries? What does rye look like when growing? What is done with it in this country? Where is it mostly used as food? What is black bread? Locate Germany; Russia; Sweden. Why is barley supposed to be the first food of man? What is pearl barley? Where are most oats raised? Find Sweden, Russia and Canada on your maps. What is made of oats in Scotland? Where is Scotland? Is it a good food?

Relate the story of Dr. Johnson.

WRITTEN QUESTIONS.—Write a list of cereals; of breadstuffs. Write an account of the discovery of maize. Where is it now raised? What kind of climate is best? Give the diacritical marking of *aborigines*, *cereal*, *discovery*, *world*, *unknown*, *principal*, *brought*. Give the synonyms of *maize*, *cereal*, *chief*, *aborigines*, *unknown*, *samples*, *grain-plant*, *grown*, *leading food*, *human beings*. Select the derivatives in the first two paragraphs. Name the different zones; the climates. What is the tropical? The temperate? Write a full description of how corn is raised and gathered, after this outline: I. Ground prepared, (a) when; (b) how. II. Planting, (a) getting seed corn ready; (b) modes of planting

1st, old way dropping by hand; 2nd, hand planting; 3rd, check rower (what is a check rower?) III. Cultivation; (a) plowing, etc. IV. Gathering. What is a husking bee? State the different ways in which it is prepared for food. Mark *handsomest*, *height*, *appearance*, *ornamental*, *productive*, *yields*. Write synonyms of *stately*, *prized*, *appearance*, *bountiful*, *abundance*. Define *delicious*, *poetic*, *crushed*, *samp*, *Indian pudding*. Write derivatives in paragraphs 3, 4 and 5. Name the countries inhabited by Spanish Americans. Name those discovered or explored by Spaniards. Give a description of the raising of rice. How many people does it feed? Where most cultivated? What kind of climate? How first introduced into S. C? What its value as food? Name some Oriental countries. Mark *occasional*, *pleasant*, *monarch*, *digestible*. Select the derivatives from paragraphs 7 to 10. The synonyms. Write all the words of one syllable. The dissyllables. Write the trisyllables. Write about the different uses of rye. Tell the difference between rye and wheat. Name the countries using "black bread." How is it made in Sweden? What is probably the cereal used as food first? How is it mostly used? Write a list of countries producing barley. Producing oats. What is porridge? Oatmeal? Write brief sketch of Dr. Samuel Johnson. Write the anecdote in your own words. Write the monosyllables; the dissyllables; the trisyllables; the synonyms; the derivatives. Define all the dissyllables; the polysyllables; the derivatives. Give marking of the whole lessons according to *long sounds; to short sounds; sonants; nonsonants*.

The following will serve as model to last.

LONG SOUNDS.

ē	ẽ	ā	â
cē′rēal	Amẽrĭcăn	maize	there
chiēf	were	name	preparing
lēading	third	grain	

ä	ô	ō	o̤
largely	ôrnamental	old	soon
starch	corn	Columbus	food
are	forms	only	

SHORT SOUNDS.

ĭ	ŭ	ĕ	ă
natĭve	nŭmber	tells	have
till	much	except	and

á	ŏ	o̤
áfter	cŏmmon	cooking
lásts	not	looks

SONANTS.

b	d	j	g
brown	darker	journey	ground

v	th	y	zh
very	these	maize	occasional

NON-SONANTS.

p	t	ch	k
part	most	cheap	cakes

f	th	s	sh
food	thickly	stately	show

It is not best to attempt too much work in marking. An occasional lesson for review, with a *very little* amount each day, will be sufficient to give the pupil enough knowledge to use the dictionary intelligently, but by all means, have the pupil use the dictionary daily in the Advanced Division.

In using the reader do not feel compelled to follow the order of arrangement in the book, but suit your own wants in time and place. It is well to read all the selections from one author while studying the biography of that author. Occasionally, let some pupil make a selection, giving him ample time to do so.

ORTHOGRAPHY.

PHONICS AND DIACRITICAL MARKINGS.

As a rule, where attention has been given to the Phonics in the country schools, too much time has been devoted to it, to the exclusion of more important things. A very good plan in ungraded schools is to review the Phonic Chart here presented, as a general exercise. Suppose you take this list of words: eat, meet, eve, mead, bier, seize, pique, key, meed, read; let the school pronounce them after you. When the long sound of e is recognized have the pupils to give all the words they can recall containing this sound, write them in a column and place the macron over the e's. Review the column rapidly and then secure the sound in concert and from the individual. Now strike out all silent letters, but remember that the school should assist you at all times. By spending *three* minutes daily the whole school will soon secure a fair knowledge of the chart.

This kind of work will be sufficient for the Primary Division, and should be carried farther in the Fourth and Fifth Reader grades.

In the oral recitation (spelling by name), the preceding list of words would be recited, thus, long e—t, eat; m—long e—t, meet; long e, v, eve; m—long e—d, mead, etc.

One letter each day, thus treated, will be sufficient, and be of more benefit than more lengthy lessons.

We here present lists of words in the order of the vowels in the chart, as appropriate for use in the plan suggested. Let the teacher add to this list as he may deem best.

Long E. Given above.
Tilde E. Earth, her, sir, myrrh, fur.
Long A. Aim, lame, bale, vain, trade.
Flat A. Air, chair, hair, mare, fair.
Long Italian A. Arm, farm, bark, charm.
Broad O. Or, for, nor, all, stall, flaw.
Long O. Oak, ope, oar, joke, smoke, own.
Long Double O. Ooze, snooze, loose.
Short I. Ill, fill, mill, pill, squill.
Short U. Up, cup, under, umber, but.
Short E. Ell, fell, well, pell-mell, Ed.
Short A. Add, at, answer, act.
Short Italian A. Ask, last, fast, mast.
Short O. Odd, on, dog, hog, fog, log.
Long O. Has no corresponding short sound.
Short Double O. Pull, foot, put.
Diphthong I. Ice, price, vice, pine.
Diphthong U. Tune, mute, duty.
Vowel Consonant Y. Yet, yes, youth.

Vowel Consonant W. Win, will, wish.

The Sonants and Non-sonants are easily given. Do not spend much time on these divisions.

It is well to have the the more difficult words written on the board, from the reading lessons, and these marked diacritically.

SONANTS.	NON-SONANTS.
B, as in bin.	P, as in pin.
D, as in did.	T, as in tin.
J, as in jig.	Ch, as in chin.
G, as in go.	K, as in kill.
V, as in vine.	F, as in fill.
Th, as in this.	Th, as in thick.
Z, as in zone.	S, as in so.
Zh, as in azure.	Sh, as in sure, shine.
LIQUIDS, L, as in lo.	H, as in he.
LIQUIDS, N, as in no.	Wh, as in when.
LIQUIDS, R, as in rain.	
LIQUIDS, N, as in sing.	

Do not attempt to do all the above work in phonics in the first month, but make your pupils quite familiar with the simple long and short sounds of the vowels.

DICTIONARY WORK.

Please note the following:

1. All reading at the central examinations should be from the Constitution of the United States.

2. Five of the words to be spelled should be selected from the list appended below, two of which should be defined. *Two* of these words should be spelled in each monthly examination.

3. All pupils who are thoroughly posted on the Civil

Government questions under the head of History will have no trouble to answer similar ones at the central and monthly examinations, but they must use the dictionary in order to give good definitions for the appended list of words.

4. A very good plan will be to read the Constitution, and after reading a sentence, test your knowledge of the most important words by referring to the dictionary for the meaning conveyed in the connection used. When the word and its connections are understood, pass to the next one in the appended list. Continue this plan until the list is exhausted. It would be well for the teacher to select all prefixes found in this list and show the pupil how words are made up of roots, prefixes, etc.

The division into months has nothing to do with the limit of the pupil's work for a given month, but simply limits the examination.

The examinations for the work in Orthography should be confined to the following limits:

FOR OCTOBER.—Define orthography, word, syllable, letter, elementary sound, vowel, consonant, vocal, subvocal, and aspirate.

Two rules for spelling:

Rule I. Final e followed by a vowel.

Rule II. Final e followed by a consonant. Note exceptions.

Constitution, domestic, tranquility, promote, welfare, posterity, ordain, legislative, Congress, electors, requisite, attained, citizen, inhabitant, taxes, including, excluding, enumeration, subsequent, entitled, executive, writs, Senator, composed, assembled, expiration, resignation, recess, temporary, appointments, President,

divided, pro tempore, exercise, sole, impeachments, sitting, affirmation.

Test your pronunciation of the following by actual use of the dictionary:

Abdomen, adverse, bade, abject, bayou, been, begone, behalf, accent, acclimate, acetic, acoustics, bellows, beneath, benzine, biography, canine, carmine, address, adept, advertise, apricot, archipelago, arctic, area, aspirant, aunt, advertisement, aged, again, ally, alternate, amen, antipodes, apparatus, burlesque.

Add new words to the list.

FOR NOVEMBER —Define diphthong, digraph, triphthong, trigraph, monosyllable, dissyllable, trisyllable, polysyllable.

Two rules for spelling:

Rule III. Final y of a primitive word preceded by a consonant.

Rule IV. Final y of a primitive word preceded by a vowel.

Secure all the long sounds of vowels

FROM THE CONSTITUTION.

Preside, convicted, concurrence, removal, disqualification, honor, trust, profit, liable, indictment, judgment, punishment, according, regulations, assemble, returns, majority, quorum, business, authorized, compel, penalty, proceedings, behavior, expel, journal, excepting, secrecy, yea, nay, entered, session, compensation, services, ascertained, treasury, treason, belong, breach, privileged, respective, debate, created, emoluments, continuance, revenue, bill, originate, presented, approve.

Test the pronunciation of the following:

Bronchitis, boquet, bombast, bomb, cassimere, cayenne, celibacy, chamois, chastisement, compensate, commandant, comely, cleanly, chronological, christianity, comrade, concave, condemning, confiscate, dishonest, disaster, diphtheria, defalcation, demonstrate, detestation, decorous, cynosure, curator, coronal, dynamite, duty, docile, disputant, empyrean, exact, financier, finance, finale, fief, faucet, facade, extraordinary, extol, forehead, gallows.

Add new words to the list.

FOR DECEMBER.—Define a primitive, derivative, simple and compound word.

Two rules for spelling:

Rule V. Doubling of final consonant.

Rule VI. No doubling of final consonant.

Review all previous work.

Review "*Phonics, Diacritical Markings.*"

From the Constitution:—

Objection, proceed, reconsider, order, resolution, repassed, disapprove, limitation, prescribed, duties, impost, excises, uniform, credit, commerce, naturalization, bankruptcies, coin, foreign, standard, weight, measure, counterfeiting, security, current, post office, post road, science, author, inventor, exclusive, discovery, tribunal, inferior, piracy, nation, marque, reprisal, navy, army, militia, insurrection, invasion, discipline, service, reserving, prescribed, cession, purchased, magazine, dockyard.

Test the pronunciation of the following:—

Glacier, geyser, gerund, gaunt, guillotine, gondola, granary, gratis, hypocrisy, humor, horizon, homage,

herb, hiccough, hearth, heraldic, idea, illustrate, italic, isolate, irremediable, interested, inquiry, jocose, jugular, legend, legislature, leisure, lenient, lever, lyceum, maniacal, matron, memoir, mercantile, mirage, mistletoe, monad, morphine, museum, mustache, my, nape, national.

Add new words to the list.

JANUARY.—Define labials, lingual, palatals, suffix, prefix.

Learn four rules for spelling plurals.

From the Constitution:—

Fort, arsenal, migration, importation, admit, prior, habeas corpus, public, attainder, ex-post-facto, capitation, census, exported, preference, port, clear, consequence, receipt, expenditure, published, title, nobility.

Test the pronunciation of this list:—

Nausea, nicotine, oasis, obeisance, oblique, occult, often, only, onyx, opponent, orthœpy, pageant, patriot, patron, pedal, perfume, permit, phalanx, placard, plethoric, precedence, prelude, pretty, process, produce, pumpkin, pyramidal, quay, raillery, rational, recess, referable, refutable, research, revolt, rise, sapphire, satire, satrap, science, semi, sergeant, shire, sibyl, sinecure, sirup, slough, solder, squalid, squalor, stalwart, stolid, subtle, suffice, suite, synod, telegraphy, three-legged, tiny, tirade, toward, treble, trio, tripartite, vehement, visor, wont, won't, yacht, zoology.

Teachers should add to this list such words as they may think best.

FEBRUARY.—Learn the use of the macron, tilde, breve, dots, cedilla and suspended bar. Other months at the discretion of the teacher.

The orthography given above is not intended to supplant the drill in spelling which must supplement every lesson. If the spelling book is used, let it be used so as to be worth something. Do not assign ten words for a lesson. Let there be fifty or a hundred words or a whole page assigned, from which the teacher can select the ten, twenty or thirty he has time to hear. Give constant drill in rapid pronunciation, pupils having the books open before them. Spell difficult words in arithmetic, history, grammar and geography. Never give up the fight in spelling.

From the Constitution:—

King, prince, state, treaty, alliance, confederation, writ, tender, debt, contracts, import, export, net, control, tonnage, ship-of-war, imminent, admit, delay.

There are but few words found in Articles II. to VII. and in the amendments not found in Article I. Let the teacher and pupil find them.

WORDS FOR PRONUNCIATION.

It is a good plan to write all words commonly mispronounced, by yourself and others, in a note book kept for this purpose. Now and then you will be mortified to find that you are mispronouncing some of the most common words in our language.

It is suggested that you try two or three (or more) of the following words daily until you have exhausted the list. It will be well to test your pronunciation of those words with which you are familiar, also:

Abel, alas, allies, almond, associate, awaken, aye, azure, basin, baths, bear, bevel, bidden, bitten, blazon, born, botch, Boston, bought, bravo, brooch, burden,

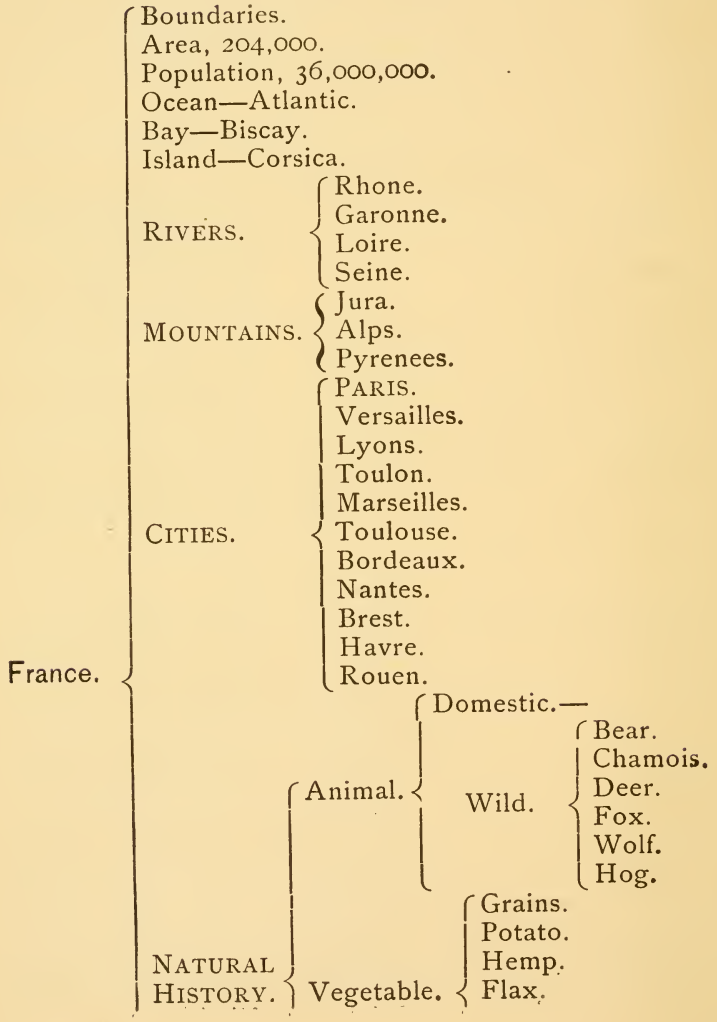
bushel, calm, canine, carbine, cassimere, channel, chappel, coral, cored, Chinese, civil, collision, damning, deaf, desert (3), dessert, devil, dictionary, eleven, engine, ermine, exile, falcon, fallen, gap, gape, gaseous, general, graven, grease (2), grimace, halibut, impious, lapel, miracle, recess, retail.

Words having the meaning changed with the accent can be arranged after this manner:

Meaning when accented on the first syllable.	Word.	Meaning when accented on the last syllable.
Something seen. . . .	object	To oppose.
Not present.	absent	To keep away.
.	accent	
.	August	
.	collect	
.	compact	
.	convict	
.	converse	
.	contrast	
.	conflict	
.	cement	
.	desert	
.	digest	
.	export	
.	escort	
.	frequent	
.	extract	
.	import	
.	instinct	
.	minute	
.	protest	
.	torment	
.	transfer	
.	transport	
.	present	

GEOGRAPHY, FRANCE.

Blackboard Form.



- Fruits.
- Tobacco.
- Vegetables.
- Mineral.
 - Iron.
 - Lead.
 - Zinc.
 - Coal.
 - Copper.
 - Salt.

Education.—Under control of the government.

Government.—A Republic.

DIRECTIONS.—1. Note how France is separated from each of the following countries, viz: Spain, Italy, Switzerland, Germany and Belgium.

2. Collect all the authors on Geography at hand, and read all that is said of France.

3. If the cyclopedia or gazetteer is at hand, take up the cities in order and read what may be said of them.

4. Examine maps and decide upon its absolute and relative position.

QUEER QUERIES.

1. Who was the Wizard of the North?
2. How wide is the strait of Dover?
3. Where is the Republic of Andorra?
4. For what is Corsica noted?
5. While Paris is considered the capital of France, what is the real capital?
6. What city in France has the greatest rainfall?
7. Who was Joan of Arc?
8. What famous tunnel?
9. What are truffles and how found?
10. Explain how victims were killed in the Reign of Terror.

OCTOBER—EUROPE.

1. Boundaries and area.

2. Indentation and projection of coasts (why suited to commerce.)

3 Mountains: Ural, Caucasus, Balkan, Alps, Carpathian, Appennines, Pyrenees, Kiolen or Scandinavian. Mountain Peaks: Ætna, Vesuvius, Hecla, Blanc, Mt. Elboorz.

4. Rivers: Dwina, Petchora, Ural, Volga, Don, Dneiper, Dneister, Danube, Tiber, Po, Rhone, Ebro, Tagus, Seine, Rhine, Elbe, Vistula, Thames, Liffey, Mersey, Neva.

5. Islands: Candia, Sicily, Sardinia, Corsica, Balearic, —1 Majorca, 2 Minorca, 3 Ivica; Great Britain, Ireland, Man, Wright, Hebrides, Iceland, Gothland, Œland, Œsel, Zealand, Orkney, Shetland, Faroe, Loffoden, Nova Zembla.

6. Cities: London, Liverpool, Manchester, Sheffield, Birmingham, Plymouth, Bristol, Glasgow, Edinburg, Dublin, Belfast, Cork, Galway, Reykjavik, St. Petersburg, Moscow, Archangel, Sebastopol, Odessa, Warsaw, Riga, Constantinople, Belgrade, Vienna, Buda, Prague, Rome, Venice, Milan, Turin, Genoa, Florence, Bologna, Naples, Paris, Marseilles, Bordeaux, Lyons, Brest, Harve, Madrid, Malaga, Gibraltar, Barcelona, Lisbon, Oporto, Brussels, Antwerp, The Hague, Amsterdam, Berlin, Leipsig, Dresden, Frankfort, Munich, Strasburg, Cologne, Bremen, Hamburg, Hanover, Madgeburg, Breslau, Konigsburg, Dantzic, Lubec, Copenhagen, Stockholm, Christiana, Bergen, Palermo, Athens, Berne.

7. Peninsulas: Crimea, Morea, Italia, Iberia, Jutland, Scandinavia.

8. Seas: White, Kara, Caspian, Black, Azov, Marmora, Archipelago, Mediterranean, Adriatic, Irish, North, Baltic.

Make out the brace form for Europe as you advance.

Take each country and arrange as for Maine in the Intermediate Division. In the study of a place or country find out all that may be said of it in the descriptive geography. Omit no interesting or important fact concerning the subject under study.

- Topical review.
- Mathematical (define.)
- Political. "
- Physical. "
- Terms.
 - Sphere.
 - Circumference.
 - Diameter.
 - Spheroid.
 - Axis.
 - Rotation.
 - Revolution.
 - Poles.
 - Plane.
 - Circle.
 - Geometrical.
 - Geographical.
 - Great.
 - Small.
 - Degree.
 - Minutes.
 - Seconds.
- Earth.
 - Shape.
 - Approximate.
 - Exact form.
 - Size.
 - Circumference.
 - Diameter.
 - Longest.
 - Shortest.
 - Greatest Circumference.
 - Motions.
 - Rotation.
 - On what.
 - In what time.
 - Effect.
 - Revolution.
 - Around what.
 - In what time.
 - Effect.
 - Poles.
 - North.
 - South.
 - Points of direction.
 - Cardinal.
 - Semi-cardinal.
- Great circles.
 - Equator.
 - Northern Hemisp'e
 - Southern "
 - Meridian circles.
 - Eastern "
 - Western "
 - Meridian.
- Small circles.
 - Tropics.
 - Of Cancer.
 - Of Capricorn.
 - Polar circles.
 - Arctic circle.
 - Antarctic circles.
 - Parallels of latitude.

- **Geography.**
 - Geographical position.
 - Latitude.
 - Definition.
 - How Reckoned.
 - Length of Degree.
 - Longitude.
 - Definition.
 - How reckoned.
 - Length of degree
 - At Equator.
 - How varying.
 - Zones.
 - Torrid.
 - Extent.
 - Characteristics.
 - Temperate.
 - North.
 - South.
 - Characteristics.
 - Frigid.
 - North.
 - South.
 - Characteristics.
 - Land.
 - Divisions according to
 - Extent.
 - Continents.
 - Western.
 - North America
 - South America
 - Eastern.
 - Europe.
 - Asia.
 - Africa.
 - Islands.
 - Outline.
 - Peninsulas.
 - Capes.
 - Isthmuses.
 - Elevation.
 - Plains.
 - Valleys.
 - Plateaus.
 - Mountains.
 - Water.
 - Oceans.
 - Atlantic.
 - Pacific.
 - Indian.
 - Arctic.
 - Antarctic.
 - Coast waters.
 - Seas.
 - Gulfs or Bays.
 - Straits.
 - Inland waters.
 - Lakes.
 - Fresh.
 - Salt.
 - Rivers.
 - Main streams.
 - Tributaries.
 - Races.
 - Caucasian.
 - Mongolian.
 - Ethiopian.
 - Malayan.
 - Indian.

9. Gulfs and Bays: Toronto, Genoa, Lyons, Biscay, Bristol, Riga, Finland, Bothnia.

10. Straits: Bosphorus, Dardanelles, Otranto, Messina, Bonifacio, Gibraltar, English, Dover, Skager Rack, Cattegat, St. George's, North.

11. Countries, Capitals, and Governments: Rule three vertical spaces; write the names of the Political Divisions in one column, the Capital Cities in another, and the kind of Government in the third column.

12. Capes: Matapan, St. Vincent, Finisterre, Wrath, Land's End, Clear, Malin Head, Stadtland, North.

13. Lakes: Ladoga, Onega, Malar, Wener, Wetter, Geneva.

Circle—define (*a*) great, (*b*) small. Tropics and Polar circles—define. Equator—define. Meridians—define. Horizon—define.

Draw diagram showing the principal circles, width, and names of zones. If you have time to do so, it would be well to review the United States in a general way, as directed.

DECEMBER—SOUTH AMERICA.

Boundaries, area, population, countries crossed by Equator, by Tropic of Capricorn; extent of latitude, north and south; of longitude, east and west. Physical features—Capes: Gallinas, St. Roque, Horn, Blanco; Rivers: Orinoco, Amazon, Negro, Madeira, Tapajos, Xingu, Tocantins, Para, San Francisco, La Plata, Uraguay, Parana, Paraguay; Lakes: Maracaybo, Patos, Titicaca; Islands: Trinidad, Joannes, Falkland, Terra del Fuego, Juan Fernandez; Cities: Bogota, Aspinwall, Panama, Caracas, La Guayra, Georgetown, Paramaribo,

Cayenne, Rio Janeiro, Para, Pernambuco, Bahia, Asuncion, Montevideo, Buenos Ayres, Valparaiso, La Paz, Potosi, Lima, Callao, Cuzco, Quito, Guayaquil. Locate the Andes and one or two other mountain ranges. Otherwise treat as suggested in the study of Europe. Read all you can find concerning the grassy plains of South America; the diamond district; the clutivation of grains; raising of stock; habits of natives, &c.

JANUARY—ASIA.

1. Boundaries and area.

2. Indentations and projections of coast. (Why suited for commerce.)

3. Mountains: Ural, Altai, Himalaya, Everest, Ararat.

4. Rivers: Obi, Yenisei, Lena, Amoor, Hoang Ho, Yang-tse-Kiang, Cambodia, Irrawaddy, Brahmaputra, Ganges, Indus, Euphrates, Tigris.

5. Islands: New Siberia, Saghalien, Japan, Phillipine Sumatra, Borneo, Celebes, Java, Ceylon.

6. Cities: The capital cities, together with the following, will be sufficient: Shanghai, Nankin, Canton, Rangoon, Benares, Bombay, Muscat, Mecca, Jerusalem, Smyrna, Batavia.

7. Peninsulas: Kamtschatka, Corea, Malay, Farther India, India, (Hindoostan,) Arabia.

8. Select ten seas.

9. Secure a general description of Asia by reference to the text and cyclopedia.

10. Review New England States.

FEBRUARY—AFRICA AND REVIEW.

Spend but three or four lessons on the map of Africa, but read and recite all the descriptive geography you can get. Secure good descriptions of the ruins along the Nile, of the Great Desert, of the inland forests, of the animals, of the people, etc.

Review Oceanica in a general way, leaving out all unimportant places and islands. A part or the following will be sufficient.

OCEANICA.
- MALAYSIA.
 - Philippine,
 - Spice,
 - Celebes,
 - Java,
 - Sumbawa.
- AUSTRALASIA.
 - Australia,
 - Papua,
 - New Zealand,
 - Tasmania,
 - Caledonia,
 - Hebrides,
 - N. Ireland.
- POLYNESIA.
 - Sandwich,
 - Caroline,
 - Ladrone,
 - Friendly,
 - Samoan,
 - Marquesas
 - Pearl.

Locate Manilla, Batavia, Sidney, Melbourne, Adelade, Perth, Hobart Town, Honolulu, Auckland.

One or two review questions upon the United States should be had daily, in addition to the regular lessons. By so doing pupils need not make a special study of the geography of the United States.

In giving location of cities and rivers, let the pupil look forward to the description of the countries in which they are.

Bring the following points to the notice of the pupil:

1. That each grand-division has two general mountain systems, in the main parallel to each other, and enclosing a valley between them. One is called the primary range or axis, the other the secondary. The only seeming exception is Africa, but by dividing it east and west through the Gulf of Guinea, we have a double continent illustrating the rule.

2. The greatest points of land project toward the south, while the water indentations point toward the north.

3. That the ocean is not a vast sheet of stagnant water, but is filled with great currents flowing through it as rivers through the land.

4. That the tides occur twice each day.

5. Observe that the climate on the western shore is milder than on the eastern shores in the same latitude. Find the cause of this.

6. Observe that the explorations and settlements have been made nearer the north than the south pole. Find the reason for this.

7. That seven-eighths of the volcanoes of the world are in the belt surrounding the Pacific or within it. Commencing with the Andes in South America, trace this belt around to Australia.

8. That the most indented grand-divisions have the highest civilization, and the least indented the least civilization. Give opinion in regard to this.

9. Observe that the vegetation is most luxuriant in

hot countries, and that plants decrease in number and size in going toward the poles. The same is true in regard to ascending mountains. Explain the reason for this.

10. That the same law is true in regard to animals.

11. Observe that the sun, in the mornings and evenings of summer days, shines into your room through the north window. Why is this?

12. Learn the meaning of the terms horizon, zenith, antipodes and nadir.

13. Find out all you can about the International Date Line.

14. Note that the equator passes over the city of Quito, the mouth of the Amazon, Gulf of Guinea, Lake Victoria, and the islands of Sumatra, Borneo and Celebes.

Make daily use of the globe. Do not neglect this.

Do not memorize the areas, population, latitude, longitude, heights of mountains, etc., excepting a very few of the most important, perhaps not more than a dozen in the whole world.

Avoid dry definitions and map questions that lead only to naming places without any association. Such knowledge is not worth the time spent in acquiring it.

Pupils of this division should know all that is given in the Primary Division of Local Geography of county and state, but do not attempt to learn the local geography of other states.

Do not under any circumstance try to remember all the places named in your geographies. It is worse than foolish. Do not attempt to learn all the map questions. Learn the most important places, and if you have occa-

sion to use the others, refer to the map. Do not memorize more than is named in the geography work of the divisions.

Take frequent reviews of the work gone over and also that in the other divisions. Have all the names given in the geography work written separately on slips of paper; put these in a box and let the pupils draw them from the box, writing all they can about any topic that should thus fall to them. The slips might appear about like these:—

Richmond?	Marseilles ?	Hudson?	Vesuvius ?
Celebes ?	Amazon?	La Paz?	Gallinas?
Horn ?	Horizon?	St. Vincent?	Springfield ?

If the pupil should draw the word "Hudson," as shown above, he might write as follows:

Hudson, one of the most beautiful and important rivers of the United States, and the most important of New York, rises in the Adirondack mountains in the northern part of the state. It flows south and empties into New York bay. It is navigable as far as the city of Troy. The most noted places along its course are the Highlands, Tappan Bay, the Horserace and the Palisades. Its most important tributary is the Mohawk.

It receives the Erie canal at Albany. The most important cities along its course are Troy, Albany, Hudson, Poughkeepsie, West Point, Sing Sing, Jersey City and New York.

Hudson is also a bay in the northern part of B. A.

Hudson is also a strait connecting Hudson Bay with the Atlantic ocean.

This is one of the best methods of review. This may be used orally, also.

Have pupils bring in all the pictures of places of importance that they can. Teacher will try to collect some from the many sources to be found. Let some picture impress upon the pupil's mind the location of nearly every city, the scenery of every country and nearly all the rivers, mountains, etc.

In drawing maps, a neat outline map upon the board drawn in *one minute* is of more practical value than a labored drawing requiring two hours.

A good general exercise is to have pupils to name all the places they can think of, beginning with A, telling what, where, and for what noted.

Go on with this until you are through the alphabet. Use the names given in the geography work of the three divisions for spelling lessons, taking names in alphabetical order as before.

For seat work, have pupils to write lists of words by natural divisions, thus: Take *rivers* one time, *mountains* another, etc. Then have each located, telling something which makes them important.

Do not neglect the geography in teaching history. There is no better opportunity for impressing places upon the memory than in the history classes. Use

your maps constantly. If you have no wall map, use your large geographies.

Make up "queer queries" about the countries as you proceed; encourage the children to hunt up curious questions about places.

Take a list of animals, write after each the countries in which it is found. Proceed in the same way with minerals and vegetables. Talk about different manufactured articles, especially of machinery and fabrics.

In what city can the people standing in their doorways, shake hands with their neighbors on the opposite side of the street?

What is the "Emerald Isle," and why so called?

What city is so smoky and foggy that people get lost in going to and from their places of business in the daytime even with the gas lighted?

What people use chestnuts as a principal part of their food?

Where is "black bread" used principally for food?

What is the difference between the vineyards of France and Italy?

How long was the East river bridge, connecting New York and Brooklyn, in building?

Where is Hoosac tunnel?

What is kerosene? Where obtained?

What is the "Dead Sea" of the New World?

What is the true source of the Mississippi?

What is a bayou?

Where is the Crescent City?

How is New York city supplied with water?

Where is the Horserace?

What president drove mules on a towpath along the Ohio and Erie canal when a boy?

What are the most noted canals of the world?

Where is the beaver found?

Where is the Lake of the Thousand Isles?

How wide is the St. Lawrence river just below Quebec? Near its mouth?

Where is the Presidents' Range?"

Where and what are the "Great Geysers?"

Where is the National Park? Who controls it?

What is "The City of Angels," and why so called?

How do the Esquimaux build their houses?

How long does the rainy season last in Brazil?

Who were the Incas?

What is the "Victoria Regia?"

From what is chocolate obtained and where found?

What is a ranch?

What is the Gran Chaco?

What is the Great Eastern?

What is the Tower?

What is the meaning of "Netherlands?" What countries are so called? Why?

What is the food of the silkworm?

Where is the most famous dock in the world?

Where is St. Peter's?

In what city are gondolas used? Why?

Where are the "Gardens of the Tuilleries?"

Who was the most noted man of Switzerland?

Where is the Matterhorn?

Who founded Constantinople?

Where is Mocha coffee obtained?

Why are Herculaneum and Pompeii noted places?

What does "Himalaya" mean?

Where is the Vale of Cashmere?

What tree sheds its bark instead of its leaves? Where is it found?

What and where is the International Date Line?

Where is Whitsunday Island?

The teacher should add to these questions as he goes on. Pupils will thus obtain a fund of information that is at once useful and fascinating.

Comparison of the Eastern and Western Continent after the following model will prove an interesting and profitable exercise:

The Eastern Continent.	The Western Continent.
1. Three grand divisions.	1. Two grand divisions.
2. Twice as large as the New World.	2. One-half as large as the Old World.
3. Length and breadth nearly equal.	3. Long and narrow; length—three times the breadth.
4. Distance, east and west, 10,000 miles.	4. Distance east and west, 3,000 miles.
5. Distance north and south, 7,000 miles.	5. Distance north and south, 7,000 miles.
6. Mountains extend east and west.	6. Mountains extend north and south.
7. Mountains highest near tropic of Cancer.	7. Mountains highest near the tropic of Capricorn.
8. One third of the surface plains.	8. Two-thirds of the surface plains.
9. Continental climate.	9. Oceanic climate.
10. Scanty rains and great deserts.	10. Abundant rains, great rivers and lakes.

The Eastern Continent.	The Western Continent.
11. Wild animals are elephant, rhinoceros, giraffe, lion, tiger, hippopotamus and camel.	11. Wild animals are buffalo, moose, grizzly bear, sloth and Llama.
12. Native domestic animals—horse, ox, sheep and hog; hen, duck, goose and dog.	12. Native domestic animals—dog and turkey.

Take up in the same way the grand divisions, oceans, mountains, pleateaus, plains, rivers, lakes, cities, ocean currents, seas, capes, etc.

Make out in the same way points of resemblance.

Let the pupil start at any point and follow a river or coast line and name every important place as he reaches it, telling something important about each place. Following this plan quite often will give pupils a complete knowledge of the important places of a country. It cultivates the habit of close observation.

If the teacher will secure the map of the United States from an old geography, paste it upon heavy card board, then with a sharp knife cut out each state, he will have a dissected map with which he can keep the pupils interested many an hour and at the same time teach the boundary and location of states so impressively that they will never be forgotten.

COMMERCIAL GEOGRAPHY.

Go to your druggist, purchase ten cents worth of pill-boxes; take these to your grocer, and ask privilege to fill each with a different article; you will find tea, coffee, chocolate, rice, pepper, all-spice, ginger, citron, sugar,

nutmeg, soda, salt, cinnamon, cloves, prunes, currants, flour, meal, bees-wax, etc.; when you have secured all that you can think of, *settle with him.* From the druggist you may secure quinine, copperas, ochre, gum-arabic, opium, licorice, magnesia. From the farmer, peas, corn, beans, seeds of different kinds, etc. From cans may be secured colored labels of fruits, such as bananas, pine-apples, quinces, apricots, plums, etc. In some manner secure a picture of a salmon, a herring, an oyster, a sardine etc. The thoughtful teacher will collect many things not mentioned above, such as silk, wool, feathers etc.

Take one of the above articles as a topic for a general exercise; with a brief outline upon the board proceed to illustrate the growth, location, cultivation, commercial value and history of the product; thus:

COFFEE.
- Description
- Nativity. (Abyssinia.)
- Cultivated in
 - Brazil.
 - Java.
 - Ceylon.
 - Sumatra.
 - India.
 - Arabia.
 - Abyssinia.
 - West Indies.
 - Central America.
 - Venezuela.
 - Guiana.
 - Peru.
 - Bolivia.
- Historical.
- Commercial.

Have the children read all that is said upon the subject of coffee in their geographies; have them supplied with pictures representing the plant in cultivation; if possible borrow or beg a large picture advertising the merits of some kind of coffee; develop statements similar to these: plant, 8 to 20 ft. in height, white flowers, gray bark, bears at three and continues to the age of 20 years, leaves opposite, evergreen, fruit red, eatable, two seeds in each berry, etc.

Picked in India, shaken upon cloths in Arabia; dried in the shade, pulp afterwards removed; fermented in the West Indies, dried, then pulp is removed by winnowing; (explain.)

Introduced into Persia from Ethiopia in 875, A. D.; into Arabia in the 15th century; Arabian writers first mention its use; sold in Constantinople in 1554 and in Venice in 1615; first coffee house in London, 1652; show the specimen and let the children handle it, talk of the berry, gathering it, preparing it for the market, etc. Browning coffee; making coffee; drinking coffee; berries boiled in Arabia, leaf in Sumatra; the best is the Mocha and second the Java; why? How to distinguish the different coffees.

Trace the transportation of coffee to the town exporting it and thence to the consumer; make this as graphic as possible by showing pictures of men carrying it, of ships loading, of custom houses receiving it, of transportation by rail, etc.

Have places pointed out in all allusions; if necessary go to the school grounds for "Mercator's Map" mentioned elsewhere. Let pupils carry it from port to port; load with some other commodity and return for another invoice.

Treat other subjects in a similar manner, until your list is exhausted. If this exercise is properly managed it will be productive of much real good, and in the hands of the live teacher is the key to success in the teaching of geography.

Try it upon a small scale, and you will be pleased with the results.

For the United States (Intermediate Division) use products grown within its boundaries for a time, and trace their exchange between the different states.

Caution—begin with the products of the farm or garden, and learn how they are *exported*(?) to other farms or to the *city*, and how the *farmer* or the *gardener imports*(?) articles in exchange for his *exports*(?).

TRACING LESSONS.

No system of teaching geography is complete without its lessons in tracing; by this we mean the plan of starting with a place, and noting all places of interest as we pass in imagination from place to place *en route* for a certain destination. In the case of "Commercial Geography" above we have a fine opportunity for doing much tracing.

Let the teacher do much tracing in his work all along the line.

OCTOBER—GRAMMAR.

1. *a*, orthography; *b*, etymology; *c*, syntax; *d*, prosody. Etymology, 1, noun; *a*, proper and common; *b*, number, singular and plural; formation of regular and irregular plurals; *c*, gender, masculine and feminine (common), methods of distinguishing the sexes; *d*, persons (three); *e*, case, nominative as subject and pred-

icate, possessive and objective. Declension. Rules for construction (nominative, possessive, objective.)

For parsing, the following form is universally recommended by the teachers who have used it. We cheerfully recommend it as being the best form of which we have any knowledge:

The	*man*	*stole*	*John's*	*hat.*
l. a.	c. n.	i. t. v.	p. n.	c. n.
"man."	3.	a. v.	3.	3.
	s.	i. m.	s.	s.
	m. g.	p. t.	m. g.	n. g.
	n. c.	3.	p. c.	o. c.
	"stole."	s.	"hat."	"stole."
		"man."		

Reading from top to bottom we have "the" is a limiting adjective, limits "man." "Man" is a common noun, third person, singular number, masculine gender, nominative case, subject of "stole," etc.

The department of grammar devoted to Orthography should be omitted in this course; it should be studied in connection with spelling as outlined.

VERBAL ANALYSIS.

1. Describe the sentence.
 - As to structure.
 - Simple.
 - Complex.
 - Compound.
 - As to use.
 - Declarative.
 - Imperative.
 - Interrogative.
 - Exclamatory.

2. Give the complex subject.
3. Give the simple subject.

Above exemplified.

Simple sentence.

"The merchant of Decatur fulfilled his contract" [1] is a simple declarative sentence, of which [2] the merchant of Decatur is the complex subject, of which [3] 'merchant' is the simple subject, modified by [4] 'the,' a simple adjective element of the first class. The subject is also modified by 'of Decatur,' an adjective element of the second class.

COMPOSITION.

The ability to write an intelligent essay or composition is worth far more to the pupil than to be able to parse the most difficult constructions in technical grammar.

Space does not permit a discussion of this statement; we ask the teacher to carefully consider it, and to do something to aid the pupil in this direction.

NOTES.—Suppose we take the subject Columbus, as outlined in the "History Outlines," and ask our pupils to write sentences containing proper and common nouns, (confining themselves to the outlines,) and to bring these to the class at the recitation; we should get something like the following as a result:—

"*Columbus* was born at *Genoa*, *Italy*, in 1435. He worked at *wool-combing* as a *trade* when a *boy*."

The pupil would recite the lines written, then say: "Columbus, Genoa, and Italy are proper nouns; 1435, wool-combing, trade and boy are common nouns."

Extend this at pleasure until the pupil writes intelli-

gently about the birth place of Columbus, then require nouns in the singular and plural under the head of "early education," etc.

"He was unlike other boys in this respect—he delighted to study the stars and would gaze at them for hours, book in hand, as he contemplated the works of the Creator."

The pupil would select the nouns as before, giving the number. Proceed in this manner, at the same time securing the expanded sentence at the end, and in order of the outline given in the history work of this division, finally producing the complete essay or historical sketch.

When the essay or composition is completed, file it as a part of the grammar work for the regular monthly examination. Due allowance will be made for this in shortening the examinations in this branch.

Columbus may be the subject for October; follow the outline given and see that the pupil is able to *use* his knowledge of grammar in his composition. Try to have every term illustrated.

By this means the pupil will learn to use the language according to the principles of grammar. He will realize that his thoughts may be expressed in a right way or a wrong way; he will fully appreciate the importance of expressing himself in the right way; he will soon come to know that *using* his knowledge of grammar in every thing he says or writes is of the greatest importance.

NOVEMBER.

Adjective, limiting and qualifying. Comparison, positive, comparative, superlative.

(Note—Make a special review, *almost daily*, of the possessive, singular and plural.)

Pronouns; personal, relative, interrogative, antecedent; declension.

Verbal Analysis.

4. Describe the modifiers of the subject as to { Structure. Relation. Base.

5. Give the base of the modifier and describe its modifiers.

6. Give the complex predicate.

7. Give the simple predicate.

The above exemplified.

Complex Sentence.

"A man who is honest will be respected," is a complex declarative sentence, of which [2] 'a man who is honest' is the complex subject, [3] a 'man' is the simple subject, [4] modified by 'a' a simple adjective element of the first class, and by 'who is honest,' a simple adjective element of the third class, a simple declarative subordinate sentence, of which 'who' is the simple subject, unmodified, also the subordinate connective, and 'is honest' the simple predicate 'Will be respected' is the simple predicate of the leading sen tence, unmodified.

Outline for Composition.

Smith.

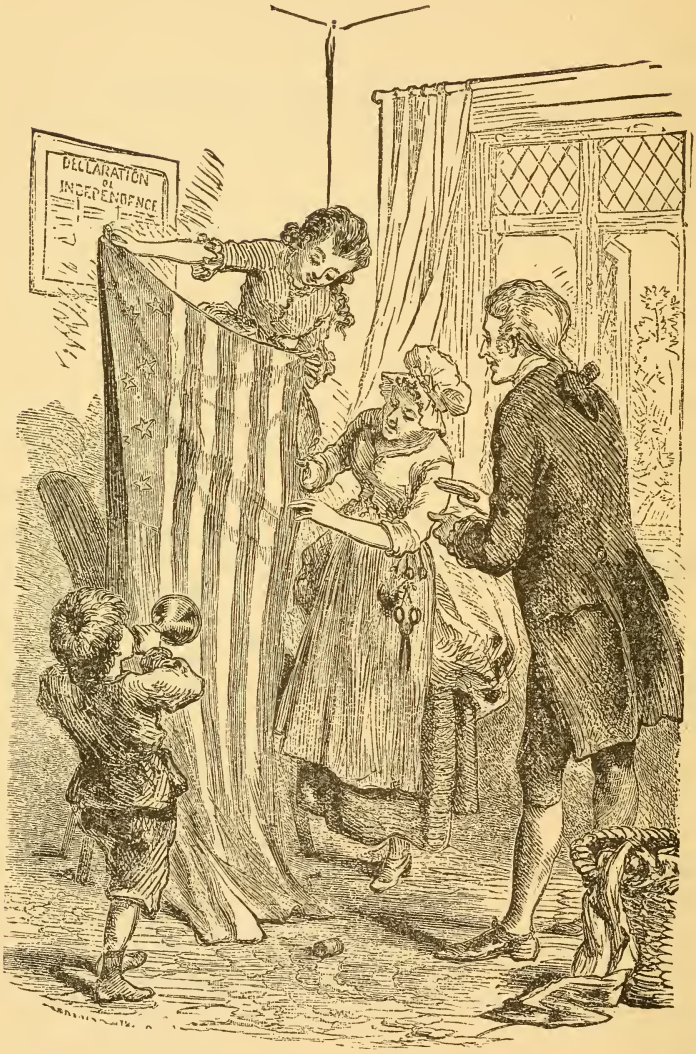
- Early life.
 - Birth,—time and place.
 - Nationality and education.
 - Early adventures.
- Manhood.
 - Explores coast of America.
 - Visited Jamestown. Is governor.
 - Colony prosperous.
 - Narrow Escape.
 - Returns to England. To America.
 - Slavery introduced.
 - His death.

Standish.

- Early life.
 - Birth,—time and place.
 - Nationality. Events of his boyhood.
- Manhood.
 - His profession. Becomes a Puritan.
 - The Puritans. (Who they were.)
 - The Mayflower. Plymouth.
 - Indian Troubles. Difficulties.
 - A Soldier. Death. Character.
 - Longfellow's poem. Resistance to the King.

Williams.

- Early life.
 - Birth,—time and place.
 - Education.
 - Time in which he lived.
- Manhood.
 - Occupation. Where? His views.
 - Banishment. Purchase of land.
 - Providence Colony. His work.
 - Return to England. His death.
 - His grave and the apple tree.



MRS. ROSS MAKING THE STARS AND STRIPES.

History furnishes a rich field for subjects in composition; the teacher can do no better than select some good historical picture, direct the children how and where to find appropriate reference matter, then require compositions to be written without reference to any book.

See suggestive outlines.

DECEMBER.

Verb, classification (as to meaning, transitive and intransitive, as to form, regular and irregular,) properties, voice, (*a*) active, passive, mode (five modes,) tense, present [2,] past [2,] future [2.] Person and number depend on subject. Conjugation.

Verbal Analysis.

Describe the modifiers of the predicate as to { Structure. Relation. Base.

Give the base of the modifier and describe its modifiers. —*Holbrook.*

ANALYSIS EXEMPLIFIED.

Compound Sentence.

"Frankness is certainly commendable, but impudence is offensive," is a compound declarative sentence, of which 'frankness is certainly commendable' is the leading sentence; of which 'frankness' is the simple subject, unmodified; of which sentence also 'is certainly commendable' is the complex predicate, of which 'is commendable' is the simple predicate modified by 'certainly,' a simple adverbial element of the first class. 'But impudence is very offensive' is a co-ordinate de-

clarative sentence, of which 'but' is the co-ordinate connective, and 'impudence' the simple subject unmodified; of which sentence also 'is offensive' is the complex predicate modified by 'very,' a simple adverbial element of the first class.

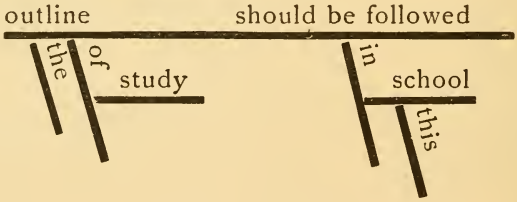
Note on Verbal Analysis.

It is recommended that persons who are somewhat advanced in the study of grammar as a science, should give much attention to analysis. To the student we will say that nothing will enable you to comprehend the sentence in all its parts so perfectly as a thorough knowledge of sentence analysis.

Diagrams.

It is recommended that the teacher use some good form of diagrams for a sentence picture to the eye of the pupil. Too many of us do not use the blackboard as freely as we should, or the means of picture and written work to be had in the school-room. Let us be aggressive and adopt every method and means within our sphere to make the schools what they should be—*the pride of the people.*

While we do not insist upon any particular form, we cheerfully recommend the following as being simple for the learner and pleasing to the eye:



Use some system of diagrams for the benefit of your classes. It is economy to do so.

OUTLINE FOR COMPOSITION.

SAMUEL ADAMS.
- Early life.
 - Birth,—time and place.
 - Parentage.
 - Education.
- Manhood.
 - Member of Assembly—1766–1789.
 - Opposes the King.
 - Colonial and Continental Congresses.
 - Signs Declaration. Defends it.
 - Death. When and where.
 - Influence of his life and character.

In the same manner select from the following list of names such as may seem best suited to your classes: John Adams, Oglethorpe, Penn, Lord Baltimore, Hudson, Raleigh, DeSoto, Cartier, Champlain, the Cabots, Magellan, Patrick Henry, Benjamin Franklin.

Be careful not to require too much of the pupils, but do the work systematically and thoroughly.

JANUARY.

Adverb, of time, place, cause, manner.

Preposition.

Conjunction, co-ordinate and subordinate.

Interjection.

Define, write, and analyze the different kinds of sentences. Select the sentences best calculated to illustrate the terms. (See verbal analysis for October, for the *terms* used.)

OUTLINE FOR COMPOSITION.

Make up and use outlines similar to those presented, for this month, of Hamilton, Fulton, Whitney, Stephenson, Monroe, Webster.

FEBRUARY.

Review the verb and such other topics as you think best. Analyze some of the sentences constructed by pupils in their compositions.

Subjects for Composition.—Calhoun, Jackson, Fremont, Mrs. Lincoln, Morse, McCormick, Field, Sumner, Pocahontas, Mrs. Hemans, Longfellow, Greely, John Hancock, Marion, Arnold, Paul Revere and his ride, Andre, Warren, Clay, Alexander Stephens, Grant, Garfield, Francis S. Key, Our Flag's History. It is not expected that pupils should write upon all of these in one month; simply those selected by the teacher should be required.

Garfield may be the subject for the Annual Exhibit in February. The teacher should prepare the outline.

SOME HELPS.—FOR TEACHER AND PUPIL.

DEFINITION.—*A theme* is a series of paragraphs giving a complete exposition of the whole subject of which a number of paragraphs treat.

Themes may be divided into:

1. Themes of Narration.
2. " " Description.
3. " " Reflection.
4. " " Discussion.
5. " " Argumentation.

NOTES.—1. When you cannot derive your facts from personal observation, read some authentic account of them; fill in the *scheme* as you read.

2. *After making up your complete scheme, never use your book for reference.*

3. Make marginal notes on your scheme for those points admitting of enlargement.

4. A theme is an expansion of paragraphs; therefore *schemes* are expanded into pragraphs.

5. Narration is *incidental*, *historical*, and *biographical*.

6. Description treats of *individual objects*, *class objects* and *moral qualities*.

7. Reflection deals with *individual objects*, *class objects*, *events*, *abstract qualities*, *and the character of persons*.

8. Argumentative themes are the most difficult as well as the most important of all compositions. It should not be treated in the first year's work of this division.

9. Discursive themes cannot be properly classified, as they include all subjects not found in the preceding.

SCHEME—EXAMPLES IN NARRATION.

1. Time.
2. Place.
3. Object.
4. Event.
5. Manner.

Example:

THE NEWS FROM LEXINGTON.

Scheme.	*Expanded Notes.*
1. Time—night.	After the battle of Lexington.
2. Place—Lexington.	
3. Object—to transmit news of battle. Relays of horses.	The villages, backwoods, seashore, and cities.

4. Event. News spread from New Hampshire to Vermont, to Montreal, to Quebec, to north, south, east, and west. Places it went.	Throughout Maine, New Hampshire, Vermont, to Quebec.
5. Manner. It hurried from New York to Philadelphia, crossed the Potomac, traversed Dismal Swamp, over Blue Ridge Mountains and Alleghenies. Settlers of Kentucky name Lexington.	All along the Atlantic States to Georgia. Westward from the mountains. What Harnett said. What about Hillsborough and Mecklenberg district?

THE NEWS FROM LEXINGTON.

George Bancroft was born at Worcester, Massachusetts, in 1800. After he was graduated from Cambridge, he went abroad to study in Germany. His most important work is the *History of the United States from the Discovery of the American Continent.* An English critic describes this work as one of great research, and says, "While the author states his opinions decidedly and strongly, it is pervaded by a fair and just spirit. The style is vigorous, clear, and frank, not often rising into eloquence, but frequently picturesque. It is a national work, and worthy of its great theme."

1. Darkness closed upon the country and upon the town, but it was no night for sleep. Heralds on swift relays of horses transmitted the war message from hand to hand, till village repeated it to village, the sea to the backwoods, the plains to the highlands; and it was never suffered to droop till it had been borne north and south and east and west throughout the land.

2. It spread over the bays that receive the Saco and the Penobscot. Its loud reveille broke the rest of the trappers of New Hampshire, and, ringing like bugle-notes from peak to peak, overleapt the Green Mountains, swept onward to Montreal, and descended the ocean-river till the responses were echoed from the cliffs of Quebec.

3. The hills along the Hudson told to one another the tale. As the summons hurried to the south, it was one day in New York; in one more at Philadelphia; the next it lighted a watch-fire at Baltimore; thence it waked an answer at Annapolis. Crossing the Potomac near Mount Vernon, it was sent forward without a halt to Williamsburg.

4. It traversed the Dismal Swamp to Nansemond, along the route of the first emigrants to North Carolina. It moved onward, and still onward, through boundless groves of evergreen, to Newbern and to Wilmington. "For God's sake, forward it by night and by day!" wrote Cornelius Harnett by the express which sped for Brunswick.

5. Patriots of South Carolina caught up its tones at the border and despatched it to Charleston; and through pines and palmettoes and moss-clad live-oaks still farther to the south, till it resounded among the New England settlements beyond the Savannah. Hillsborough and the Mecklenburg district of North Carolina rose in triumph, now that their wearisome uncertainty had its end.

6. The Blue Ridge took up the voice and made it heard from one end to the other of the valley of Virginia. The Alleghenies, as they listened, opened

their barriers, that the "loud call" might pass through to the hardy riflemen on the Holston, the Watauga, and the French Broad. Ever renewing its strength, powerful enough even to create a commonwealth, it breathed its inspiring words to the first settlers of Kentucky; so that hunters who made their halt in the matchless valley of the Elkhorn, commemorated the nineteenth day of April by naming their encampment LEXINGTON.

DEFINITIONS.—1. Relays, *supplies of horses placed on the road, to be in readiness to relieve others.* 2. Reveille (revalya), *the beat of drum, about daybreak, to give notice that it is time for the soldiers to rise.* 6. Commonwealth, *an established form of government; usually applied to governments which are considered free or popular.*

NOTES.—4. Cornelius Harnett was an American statesman. He was born in England, but became a citizen of North Carolina before the Revolution, and was afterward a member of the Continental Congress.

5. *The Mecklenburg district of North Carolina.* The patriots of this district adopted a declaration of independence more than a year previous to the general declaration, made in Philadelphia, July 4, 1776.

6. Lexington, which was formerly the capital of Kentucky, is a thriving town in the northeastern part of the State.

A *simile* is a comparison of two objects, and is founded on resemblances, thus:

"As a father pitieth his children, so the Lord pitieth them that fear him."

Comparisons should only be made, when one object

is more familiar than the other, where there is sufficient similarity, and where the likeness is not too obvious.

Make similes to these words:

Life,	Hate,	Eternity,
Death,	Love,	Sorrow,
Age,	Intemperance,	Anger.
Youth,	Friendship,	

Select from readers, geographies, grammars and histories all the similes you can find. Write them on as many subjects as you can.

A *metaphor* gives an object the appropriate name of another object, on account of a resemblance between them.

A metaphor is founded on comparison, but represents one thing as doing what is really done by another. Thus: "The grassy plain of the LaPlata is like a sea," is a simile; while "The sea of grass along the LaPlata," is a metaphor.

Change these metaphors into plain language:

"Thy word is a lamp to my feet, and a light to our path."

"I am the bread of life."

His head was covered with the frost of many winters.

The dew of youth was upon her lips.

Hyperbole exaggerates a statement. It differs from a falsehood, because in using it there is no wish to deceive. It is a kind of speech into which young people are very apt to fall. This is because the imagination of the young leads them unconsciously into it. Point out the hyperboles in your reading lessons, and give your idea as to why they are used. The following will serve as an example:

"Seventy breezy miles were written in his very whiskers. His manners were a canter; his conversation a round trot. He was a fast coach upon a down hill turnpike road; he was all pace. A wagon could not have moved slow with that guard and his turnkey upon it." *Charles Dickens.*

Personification attributes to inanimate objects some of the qualities of living beings. "The Freaks of the Frost" is a well known example, as are also most of Æsops Fables.

Comparison is an extended simile.

Apostrophe addresses the absent, the dead, or inanimate objects, as if the last had consciousness; thus:

"Roll on, thou deep and dark blue ocean, roll!"

Apostrophize the ocean; the setting sun; the snow; George Washington.

Climax consists in so arranging the words of a series, or the parts of a sentence, that the least impressive may stand first, and the successive words or parts grow in strength.

The following will serve as examples:

"The Lord is my shepherd, I shall not want. He maketh me to lie down in green pastures; he leadeth me beside the still waters; He restoreth my soul, He leadeth me in the path of righteousness for His name's sake. Yea, though I walk through the valley of the shadow of death, I will fear no evil, for Thou art with me; Thy rod and Thy staff they comfort me. Thou annointest my head with oil, my cup runneth over. Surely goodness and mercy shall follow me all the days of my life and I will dwell in the house of the Lord forever."

"He aspired to the highest—above the people, above the authorities, above the laws, above his country."

Let the pupils select and name the different figures here given, thus making them familiar with the more common ones. Let them attempt the use of those named.

History and biography afford the simplest themes for composition; such as—

The adventures of Ponce De Leon.

The Conquest of Mexico by Cortez.

DeSotò's Discovery of the Mississippi River.

The Coming of the Pilgrim Fathers.

The Massacre of Wyoming.

Washington Irving.

Life of Pythagoras, etc.

Information upon these topics is easily obtained.

Take some sentence, consisting of simple subject and simple predicate, have pupils add modifiers of single words, then phrases; thus:

1. Birds	fly.
2. Some birds	fly swiftly.
3. Some birds of prey	fly very swiftly.
4. Some birds of prey, having secured their victim,	fly with it very swiftly to their nests.

Is this still a simple sentence? Have the answer to this question made very clear to the pupil.

Try this with these or similar sentences:

1. Ships sail. 2. Lightning glares. 3. Stephen died. 4. Joseph was sold. 5. Prayer is desired. 6. Islands produce. 7. Children sing.

Take several statements, write them upon the board, and have pupils write them into a simple sentence. The following exemplifies the method:

1. Columbus saw a light at a distance.
2. This was about two hours before midnight.
3. Columbus was standing on the forecastle.

Combined. About two hours before midnight, Columbus, standing on the forecastle, saw a light at a distance.

Unite the following into a simple sentence:

1. Columbus returned to Spain in 1493.
2. He had spent some months in exploring the delightful regions.
3. These regions had long been dreamed of by many.
4. They were now first thrown open to European eyes.

1. The next morning the battle began in earnest.
2. The next morning was the 24th of June.
3. The battle began at daybreak.

These may be constructed in several different ways. App'y these tests: Which construction is clearest? Which neatest? Which most harmonious?

1. DeSoto discovered a great river.
 The Indians called it Mesaseba.
 It is now called the Mississippi.
2. The clustered spires of Frederic stand.
 They stand up from the meadows rich with corn.
 They stand clear in the cool September morn.
 Frederick is green-walled by the hills of Maryland.

Complete the following complex sentences by adding adjective clauses:

1. The condor is the largest bird
2. Botany is the science
3. The day will come

Add adverbial clauses to the following:

1. The camel is called the ship of the desert
2. The ground is never frozen in Cuba, ...
3. The highest mountains are constantly covered with snow, ...

Teacher will take a short story, read it aloud to the class. The class will write it from memory. Point out the simple and complex sentences. Analyze or diagram one of each.

Add to each of the following statements another statement, using *and* as a connective:

1. In winter the days are short, and ——
2. Grant was a great soldier, and ——
3. Grover Cleveland was governor of New York, and ——

Use *but*, yet, else, nevertheless, etc., in the following:

1. Though Belgium is a small country, yet ——
2. Many persons tried to discourage Columbus, but
3. Napoleon was a great conqueror, but ——
4. Although sugar is made chiefly from the sugar cane, ——
5. Washington was defeated at Brandywine, but ——

The teacher can add to these sentences at his pleasure. The completion of such statements will assist very much in giving the pupils a correct conception as to what a simple, complex or compound sentence is; also why one is complex or simple and the other compound. Be able to tell any of the kinds of sentences and to write examples of each kind.

Expand these simple into complex sentences:

1. The physician predicted the recovery of your father.

2. Men of great talents are not always lovable persons.

3. The Jews still expect the coming of the Messiah.

4. The stars appear small to us because of their distance.

Change these simple sentences into complex and, if possible, into compound:

1. The water is not fit to drink on account of its saltness.

2. With patience, he might have succeeded.

3. Having defeated Hood, Sherman took possession of Atlanta.

Change these complex sentences into simple:

1. When it snows in Memphis, it disappears in one day.

2. Unless we are diligent we will not succeed.

Contract these compound sentences into complex or simple.

1. You are perplexed and I know it.

2. The man yelled vociferously and immediately the crowd gathered.

3. Though Ponce DeLeon searched for the fountain of youth, yet he never found it.

In all this work the teacher will add to the suggestions given, until his pupils can express their thoughts in simple sentences, expand them into complex or compound, or contract them to simple from complex or compound.

Have pupils change sentences containing verbs in the active to the passive, and those in the passive to the active voice.

Have pupils to write short paragraphs on the news of the day.

PRACTICAL ARITHMETIC.

If the pupil be thoroughly grounded in the principles involved in *decimals*, he will have but little trouble in the application of *percentage*.

It is thought best not to divide the work of this division into month's work, but to leave the limit to the discretion of the teacher. Let the work be thoroughly and carefully done.

Define per cent., rate percentage, base.

The four cases of percentage; profit and loss and its cases; commission and brokerage; capital and stocks, insurance, taxes, customs, bankruptcy, interest, discount, exchange, equation of payments, etc.

All problems solved by the application of one or more of the four cases in percentage.

No more terms should be defined than seem necessary to a clear understanding of the subject.

For those teachers desiring examination limits we present the following, which is but suggestive:

OCTOBER—DECIMALS AND REVIEWS.

The only point in decimals is the *decimal point. Will you fix it?*

It is well to review United States money, then show the children that the point has the same *use* in decimals, and that we could carry the decimals of a *dollar* toward the *right* as in decimal fractions. Define all the terms, and solve all problems.

Give numerous problems in lumber measure; buy and sell by the M. Ditto brick. Ditto hay by the ton, etc. Review at pleasure in such portions of the book as thought best. If completed before the date of examination, pass to the next month's work.

NOVEMBER—PERCENTAGE TO PARTIAL PAYMENTS.

Find some good arithmetic and introduce percentage by analytical steps, long before reaching the subject in the text; if you make your pupils familiar with all that the term per cent. means, then you will have but little trouble in its application. Define terms when necessary and complete interest to partial payments. Adopt but *one* rule in the solution of problems, and *omit* all others. To those not satisfied with results, we offer the following as suggestive:

Problem: Find the interest of $720 for 2 years, 5 months and 15 days, at 5 per cent.

FIRST STEP.
$$\left.\begin{array}{r} 2 \times 36 = 72 \\ 5 \times \ 3 = 15 \\ 15 = \ 15 \end{array}\right\} = 885 \text{ days.}$$

RULE.—*Multiply 36 by the number of years, 3 by the number of months, place in a column for addition, then place days in the column with units figure one place to the right, and add. This will reduce the time to days.*

SECOND STEP.—
$$\frac{720 \times 5 \times 885}{36} = \$88.50.$$

RULE.—*Place the principal, rate, and time in days upon one side of a line, 36 upon the other, cancel, and point three places.*

(Teacher will explain omission of 0 in 36 and 3.)

Write promissory notes; write same and find interest; write same, endorse payments, and compute interest to date; write same to order, endorse for exchange.

DECEMBER—INTEREST CONTINUED.

Treat Proportion as such, as Analysis, or as cause and effect, at the discretion of the teacher. Continue inter-

est, and review to discount, omitting compound interest if thought best.

Try to have "actual business" transacted, as in many business colleges. Have notes, payments with receipts, bills of goods, endorsements, etc. Trade discount should be explained, thus: 20 and 10 off; two tens and five off, etc. Cull all your authors for good practical problems.

Pass to next month's work when completed, whether the date of examination is at hand or not.

JANUARY—PERCENTAGE, PARTNERSHIP, ETC.

Complete and review all important applications of percentage, and all other topics to Analysis, inclusive, selecting only the important terms for definition.

FEBRUARY.

Square and Cube Root. Other topics and months at the discretion of the teacher.

A bountiful supply of practical problems should be given weekly; the plan illustrated in the Intermediate Division is a good one.

UNITED STATES HISTORY.

The following limits for the examinations are but suggestive:

OCTOBER.—The Discovery Period.

NOVEMBER.—The Settlement Period.

DECEMBER.—The Revolutionary Period.

JANUARY.—Constitutional Period to Pierce's Administration.

FEBRUARY.—To Johnson's Administration.

Other months at the discretion of the teacher.

BLACKBOARD FORM.

PERIODS. { 1492–1607 / 1607–1775 / 1775–1789 / 1789– } PERIOD OF { Discovery. / Settlement. / Revolution. / Constitution. }

Write the above form on the board, slate, or scratch-book, and repeat until learned.

"From 1492 to 1607 is called the Period of Discovery; from 1607 to 1775 is called the Period of Settlement," etc.

QUESTIONS.—Why do we adopt the date 1492 as a beginning for the time of a period? Why do we divide the study of U. S. History into Periods? How many and what Periods? From what is each named?

Write the form. Re-write it. Erase and write it again until thoroughly learned.

1. PERIOD OF DISCOVERY.

BLACKBOARD FORM.

The Three Great Discoverers. { 1492 / 1493 / 1498 / 1502 } Columbus. { San Salvador. / Isabella. / S. America. / Cent. America. }

1494 or '97 Cabots —Cape Breton.

1499 Vespucci —America.

Write the form and repeat, "In 1492 Columbus discovered San Salvador; in 1493 Columbus founded Isabella on Hayti Island; in 1498 Columbus discovered South America, near the mouth of the Orinoco River," etc. Commence the statement with "In," and simply make the best sentence to tell what was done.

DIRECTIONS.—1. Tell the story of Columbus's boyhood. 2. Of his trials and triumphs in securing aid

to carry out his undertakings. 3. Of his first voyage. 4. Of his subsequent voyages. 5. Tell all about the Cabots, and what they did. Ditto Vespucci.

QUEER QUERIES.

1. What did Columbus do with the $70 which Queen Isabella sent him?

2. How many and what countries did he visit to secure aid in fitting out his vessels?

3. What did "Old King John" do when he applied to him for aid?

4. Where did Columbus think the Orinoco had its source?

5. How many times was he buried? Where is his grave now? Locate the place.

6. What did he make out of the Santa Maria?

7. What did the Cabots take to England with them?

8. Why was not the continent called Columbia?

9. What was the German geographer's name who published the first account of the new world?

10. Who first saw the land from Columbus's vessel?

BLACKBOARD FORM.

Tracing Columbus.	Palos to Gomera. Gomera to San Salvador. San Salvador to Cuba. Cuba to Hayti. Hayti to St. Mary's. St. Mary's to Palos.

Recited: "Columbus sailed from Palos to Gomera, from Gomera to San Salvador, San Salvador to Cuba," etc.

Let the pupil find and locate each of the above on some good map.

REVIEW.

1. Write the form for the Periods.
2. For the Three Great Discoverers.
3. For tracing Columbus.
4. Write an account of Columbus's second voyage.
5. Tell the story of Columbus and the egg.
6. Make out a skeleton to represent the Periods, thus:

PERIODS. { — to — / — " — / — " — / — " — } PERIOD OF { ——— / ——— / ——— / ——— }

Now fill the blanks orally.

7. Make blank skeleton for the Three Great Discoverers and fill in same manner.
8. Write a short paragraph about the Cabots.

REMARKS:—Tell nothing in the language of the author. Use your own language. *Talk and write independently.*

BLACKBOARD FORM.

Discoveries of Nations.

- Spanish.
 - 1512—De Leon.
 - 1513—Balboa.
 - 1520—Magellan.
 - 1541—De Soto.
 - 1565—Melendez.
- French.
 - 1524—Verrazani.
 - 1534—Cartier.
 - 1605—DeMonts.
- English.
 - 1579—Drake.
 - 1584
 - Amidas.
 - Barlow.
 - 1602—Gosnold.
- Dutch.—1609—Hudson.

DIRECTIONS.—1. Take De Leon as a subject, and read all your history may say of him. If other authors are at hand, read their version of the same subject. Finally, settle down on the fact that "In 1512 De Leon discovered Florida." 2. Treat the discoverers in order as arranged above, in a similar manner. Do not undertake the study of more than one or two daily. 3. As you proceed be sure to write and re-write all the preceding forms. 4. Tell the story of De Leon and his discoveries. Trace him from place to place. 5. Ditto for each discoverer. 6. Locate each place discovered, on the map (*i. e.*, point out each place and tell where it is). 7. Make a list of each group of discoverers.

QUEER QUERIES.

11. Why was Florida so called? South Sea? Pacific Ocean? California? Virginia?

12. What was De Leon looking for? Did he find it? Why?

13. Why did Balboa come to America?

14. Why did DeGourge murder the Spaniards?

15. Why did Balboa wade into the ocean?

16. Which discoverer drove hogs before him while traveling?

17. Where did DeSoto leave his wife when he traveled through the South? Why was he buried so often? Where and how each time?

18. What became of Magellan? Drake? Gosnold?

19. Tell all you can about curious Indian mounds.

20. After whom should this continent have been named? Why?

21. What was the Astrolabe, as used by Columbus?

22. What did Columbus do when he first stepped on American soil?

23. What did the Indians think the ships of Columbus were?

24. What explorer was left on Hudson's Bay to perish with his son and four companions?

25. Is the chicken a native of America? The turkey? The horse? The sheep?

26. What did Columbus believe Hayti to be?

27. What is the only marsupial of America?

28. What early explorer lies under a pair of stairs in Quebec?

29. What noted explorer lies in the mud of the Mississippi?

30. What is the oldest town in the United States?

REVIEW.

9. Write about each of the explorers in turn.

10. What part of the United States did each nation claim, and why?

11. How many and what nations made discoveries within the present boundaries of the United States?

12. Trace Sir Francis Drake on his voyages?

13. Who named Virginia? Why the right to name it?

14. Tell all you can about tobacco and the potato.

15. Trace Hudson to his abandonment on Hudson's Bay.

16. Which is the oldest settlement in the United States? In Canada?

17. Name the four great Indian tribes. Where was each located?

18. Tell all you can about the Indian dress.

BLACKBOARD FORM.

CLAIMS.
- Spain.
 - Florida.
 - New Mexico.
- France.
 - Acadia.
 - Canada.
 - Mississippi Valley.
- Holland.—New Netherlands.
- England.
 - N. Virginia.
 - S. Virginia.
 - N. Albion.

Copy the above form neatly and carefully; recite, "Spain claimed all the southeastern part of the United States under the name of Florida," and "the southwestern under the name of New Mexico." "France claimed the northeastern part of the United States, the northern (including Canada) and the whole of the Great Lakes and the Mississippi Valley, under the name of Acadia, Canada, and the Mississippi Valley." "Holland claimed the territory extending from the Delaware Bay to the Connecticut Valley, under the name of New Netherlands." "England claimed all of the southern part of the United States under the name of South Virginia, and the northern under the name of North Virginia, and the western under the name of New Albion."

QUESTIONS AND DIRECTIONS.

After a careful study of the map tell what claims overlapped.

19. The overlapping of claims would probably lead to what? Why was New Albion so called? Virginia? Florida? Acadia? Canada? New Netherlands?

20. By what right could any nation claim a new territory in America?

21. By what right did the Dutch claim New Netherlands? The English, North and South Virginia and New Albion?

REMARKS.—The recitation should be from the blackboard form, invariably. Pupils should depend entirely upon the memory in class recitation, *i. e.*, all books and helps should be laid aside. More or less writing should be required at each recitation. Be sure that you can locate each place named in the text. Write the preceding blackboard forms daily until learned. Never write them without repeating the sentence for each date.

WRITTEN EXAMINATION.

Write with ink if possible. Be very careful about the spelling of proper names. Indent the first word of each paragraph. After papers are graded file them for future reference.

22. Write a short sketch of Columbus and what he did.

23. When and by whom was Guanahani discovered? The Mississippi? How many years had intervened from the discovery of one to the discovery of the other?

24. Write in order of the time of the discovery the names of the discoverers adopted in the analysis (blackboard form).

25. Tell the nationality of each discoverer, and the power he served. Tell the story of DeLeon and the Fountain of Youth.

26. Who were the three great discoverers?

27. Tell something you have read concerning the early discoveries not found in your text-book.

28. What do you think about the real honor of the

name America? Should it belong to Americus or Columbus?

29. Did Columbus know that he had discovered America? Where did he die?

30. Give the limits of North and South Virginia (in degrees).

Colonial Period.

Blackboard Form.

Virginia.
- 1607—Jamestown.
- 1610—Famine.
- 1619
 - Legislative.
 - Negroes.
- 1620—Women.
- 1622—Massacre.
- 1624—Royal.
- 1644—Massacre.
- 1676—Bacon's.

Virginia.
- 1607.
 - Jamestown.
 - Eng. Emigrants.
 - Edward Wingfield.

Directions.—1. After reading all you can find concerning the settlement of Jamestown, repeat: "In 1607 Jamestown was settled." "In 1610 a famine occurred," etc. 2. Copy and recite the above as you memorize the event. 3. Place "In" before 1607, "at" before Jamestown, "by" before Eng. Emigrants, and "under" before Edward Wingfield. Then memorize: "Virginia was settled *in* 1607, *at* Jamestown, *by* English emigrants, *under* Edward Wingfield." 4. Tell all you can about the Indian Massacres. 5. Tell all you can about the legislative assembly. 6. Read all you find on the

introduction of slavery into the colony. Tell this in your own words. 7. What is meant by a charter government? Why so called?

QUEER QUERIES.

31. What did the Indians of Jamestown plant in order to grow ammunition?

32. How many negroes were sold at first, at Jamestown?

33. Were women really sold in Jamestown? If so, what was the price?

34. How did Captain Smith shield himself from the arrows of the Indians?

35. Is the story of Pocahontas's saving Captain Smith now accepted as true?

36. How did Columbus make the egg stand on end? Tell the story?

37. What became of Sir Walter Raleigh?

38. Are the ruins of Jamestown now visible?

39. What early explorer climbed a tree in order to see the Pacific Ocean.

40. What is meant by the Virginia Readjusters?

REVIEW.

31. Write the analysis of the claims to American soil.

32. Write a good sketch of Balboa. De Soto.

33. Locate territory which overlapped by conflicting claims.

34. How many and what periods in our history? Give date of beginning of each.

35. What did Columbus do? Balboa? De Soto? De

Leon? Bacon? Pocahontas? Cortez? Gosnold? Cartier? Magellan? Champlain? Verrazani?

36. Make out the analysis of Virginia. Of the voyages of Columbus.

37. What is meant by North and South Virginia, as mentioned in the histories?

38. Explain what is meant by the Plymouth and the London companies.

39. Why was Virginia so called?

40. Did the early settlers find gold in Virginia? Is there any native gold in the State? Who is the present governor? How many and what capitals has it had?

REMARKS.—1. Do not memorize the text of any author. Use your own language to tell what you know of the text. 2. Write the answers to all questions. "Once writing a topic is worth twice reciting it." 3. Repeat and re-write, time and again, that which you find most difficult to remember. 4. Do not omit taking notes as you find new facts in different authors.

Make out blackboard forms for other colonies as in Virginia. Make up good list of queer queries; keep up the reviews.

INTERCOLONIAL WARS.

BLACKBOARD FORM.

- Cause? King William's. Gain?
 - From 1689 to 1697.
 - In 1689
 - Dover.
 - Fort Pemaquid.
 - Casco Bay.
 - Salmon Falls.
 - In 1690—Schenectady.
 - In 1691—Port Royal.
 - In 1697—Ryswick.

Cause? Queen Anne's. Gain?	From 1702 to 1713. In 1704—Deerfield. In 1710—Port Royal. In 1713—Eutrecht.
Cause? King George's. Gain?	From 1745 to 1748. In 1745—Louisburg. In 1748—Aix-la-Chapelle.

DIRECTIONS.—1. Look through the history of the above wars to determine why each was so named. 2. Search the geographies or gazetteer to locate Ryswick, Eutrecht and Aix-la-Chapelle. 3. Ditto each place named in the blackboard form. 4. Study the cause and gain (if any) of each war. 5. Practice writing the blackboard form, thinking of the exact location of each place as you write the name. 6. Ditto same, thinking of the result of each battle, expedition, attack, etc. 7. If you do nothing more than remember the cause and gain of each war, do it well.

QUEER QUERIES.

41. Which colony took the Bible for its guide?

42. What did the Indians wear upon their feet in making the attack upon Schenectady?

43 What is the basis of Longfellow's Evangeline?

44. On whose discovery did the English base their claims to American soil?

45. What is meant by the "hasty pudding" of the colonists?

46. What is meant by the Blue Laws of Connecticut?

47. How was the Puritan church sexton armed during the sermon?

48. In what way was tobacco responsible for the introduction of slavery into the Virginia colony.

49. What was the first Bible printed in America?

50. What nation introduced Santa Claus into our Christmas festivals.

BLACKBOARD FORM.

Cause? French and Indian War. Gain?

From 1754 to 1763.

- In 1754 — Gt. Meadows. Ft. Necessity.
- In 1755 — Nova Scotia. Crown Point. Niagara. Ohio River.
- In 1756 — Gt. Britain. Oswego.
- In 1757 —Fort William Henry.
- In 1758 — Louisburg. Crown Point. Ft. Frontenac.
- In 1759 — Ticonderoga. Niagara. Quebec.
- In 1763 —Treaty of Paris.

DIRECTIONS.—First read all the matter at hand on the *cause* of the war; frame your answer to this question; then treat the subject of gain in the same manner. 2. Read over the *cause* and *gain* of each of the preceding wars and determine in what respect they differ. Couch your conclusion in good language and submit it to your teacher for his approval. 3. Read as separate topics in your several authors, Braddock's Defeat, the Expeditions of 1755, the Capture of Louisburg, Attack on Crown Point, Expedition against Ft. Frontenac, the

Ticonderoga Affair, and the Capture of Quebec. 4. Write the following names in this form,

English Commanders. { Braddock. Loudon. Abercrombie. Amherst.

and recite: "Braddock was the first commander-in-chief, and was succeeded by Loudon, Loudon by Abercrombie, Abercrombie by Amherst." Do not abandon this form until you can tell the year that the succession took place and whether it affected the campaigns or not. 5. Be sure that you know who the French commander-in-chief was, and where he was killed.

QUEER QUERIES.

51. What poem did Wolfe recite and comment upon while crossing the St. Lawrence to his death?

52. Who coined the first money in the colonies?

53. Who first taught freedom of religious worship in the U. S.?

54. When did the Puritan Sabbath commence?

55. What penalty did Massachusetts inflict upon Quakers?

56. Which lived the longer, Columbus or Queen Isabella?

57. What was the name of Hudson's vessel?

58. What did the Indian who killed King Philip receive for the deed?

59. Why is your native State so called?

60. What city of the U. S. containing a population of over 100,000 does not cast a single vote for President?

REVIEW.—1. Write a list of the intercolonial wars with name of treaty opposite each. 2. Give the history

of the witchcraft delusion. 3. Sketch the course of French discoveries and settlements in the Mississippi Valley. 4. Write the form for King Philip's War. 5. Ditto Queen Anne's. 6. Ditto King George's. 7. Ditto French and Indian War. 8. Give a history of Pontiac's conspiracy in your own language. 9. Write a list of all the wars, rebellions, etc., from the settlement of Jamestown to the peace of Paris, and tell where each was enacted. 10 Explain how it was that the colonists were contented under the English rule, and how they cheerfully fought for her during the French and Indian War.

NOTES.—In your spare moments consult such authorities as you may have at hand on the Jesuit Fathers, Jaques Marquette, Robert Cavalier de LaSalle, Louis XIV, Lemoine d'Iberville, John Law, Louis Joseph Montcalm de Saint-Veran (Montcalm), James Wolfe, Thomas Hooker, Thomas Shepard, President Chauncy, Cotton Mather, Governor Bradford, Governor Winthrop, Elihu Yale, Jonathan Edwards, Benjamin Franklin, John Bartram, Captain Kidd. We ought to know more of men and their good deeds than of wars and their influences (in the colonies).

BLACKBOARD FORM.

Causes of Revolution.

- 1660—Navigation Act.
- 1764—Sugar Act.
- 1765
 - First Colonial Congress.
 - Stamp Act.
- 1766—Stamp Act.
- 1767—Duty on Tea.
- 1768—Troops.
- 1769—Traitors.
- 1770
 - New York.
 - Boston.
- 1773—Tea Party.
- 1774—First Continental Congress.

DIRECTIONS.—Read your authors to determine what was meant by the Navigation Act. If you are unable to do so, please ask your teacher to explain what is meant. 2. Tell in your own language what is meant by the Sugar Act. 3. Read the text until you have a clear idea of the difference between the First Colonial and the First Continental Congress. When you are sure that you understand this, fix the place of meeting for each. 4. What is meant by the Boston Tea Party? Tell the story of Colonel Montague and the "Minute man." 5. Read all you can get on the subject of the Boston Massacre and the troubles in New York with the Sons of Liberty. After you have thoroughly studied the causes of the Revolution as outlined by the blackboard form, please re-read the text with a view to determining the real reason for the revolt of the colonies.

Was "taxation without representation" the *real reason* as so often printed in our books?

TO THE TEACHER.—Do not ask the set questions printed in your text, but have independence enough to stand up and *be original in your teaching*. Don't lose your individuality by following anybody's arbitrary plans, but use them as suggestive merely and work out your own plans from them. No matter if you *are* awkward, try to have your illustrations and questions filled with pith and point.

QUEER QUERIES.

61. What was meant by the "Writs of Assistance?"

62. How many boxes of tea were thrown overboard by the "Boston Tea Party?"

63. Who wrote "The Sun of Liberty is set; the

Americans must light the lamps of industry and economy?"

64. What was the color of the stamps of 1765?

65. Was the first bloodshed of the Revolution at Boston or New York?

66. Did the tea cost the colonies more or less than it cost in England? Why did the people not drink it?

67. What did Patrick Henry mean when he said, "Cæser had his Brutus, Charles 1. his Cromwell," etc.?

68. What did the colonists substitute for tea, and what did they call it?

69. In which one of the preceding wars did the contending nations fight for *two* years before they declared war?

70. What was meant by the "minute men?"

REVIEW AND NOTES.—1. Write a list of the thirteen colonies, and tell where the Colonial and Continental Congresses were held. 2. What was meant by a Charter Government? 3. Write the forms for the first settlement of each of the thirteen colonies. 4. Tell all about Pontiac's war. 5. Look through your authorities and make a list of the early colleges with dates of their founding. 6. Ditto, and make a list of prominent actors from the time of Columbus to 1775. 7. Write the form for the causes of the revolution. 8. Ditto for the French and Indian War. 9. What *was* the cause of the Revolution? 10. Write a paragraph about each of your teachers (in order of their succession).

NOTE.—With the first of the month commence with some good plan of reviews, and pursue them with a definite purpose, viz., for the purpose of knowing more of our country's history. Try this plan for one month;

read all you can find concerning any man mentioned in the text over which you have passed. Study but *one* man each day for the twenty school days, and then compare your knowledge of United States history with your ignorance of it twenty days previous. With the commencement of the Revolution begin the study of men and their actions.

Build up a study of the war of the Revolution after the same form as in that recommended for the Discoveries and the colonies.

Period of the Constitution.

BLACKBOARD FORM.

Monroe, "The Poor but spotless President."

- 1817 to 1825.
- 1817 — Seminole. Mississippi.
- 1818—Illinois.
- 1819 — Alabama. Savannah. Florida.
- 1820 — Maine. Mo. Compromise.
- 1821—Misssouri.
- 1822—Monroe Doctrine.
- 1824—La Fayette.

Directions.—1. Read this administration in a general way. 2. It would now be well to go back to the Brandywine and trace La Fayette through the American Revolution. 3. Read your author to determine what the army of the West, Center, and the North did in 1813. 4. Read all you can find concerning the Declaration of Independence. 5. Are you sure that you know what was meant by the Missouri Compromise?

QUEER QUERIES.

71. Of whom has it been said that "if his soul was turned wrong side out there would not be found a single blot on it.

72. What president was the "father of a president?"

73. Why was Monroe's second inauguration on the 5th of March?

74. What was the name of the vessel which carried LaFayette home?

75. What was the first steam vessel that crossed the Atlantic?

76. When was the American Bible Society established?

77. Why were the Blue Laws of Connecticut so called?

78. What was the length of an early New England sermon?

79. If a woman went to sleep during one of these lengthy sermons what was done to wake her?

80. Was slavery introduced in 1620 or 1619?

WRITTEN REVIEW.

NOTE.—Grade on spelling, capitalization and paragraphing in this review.

41. Write about Queen Anne's war.

42. Write about the Missouri Compromise.

43. Make a list of States admitted from 1789 to 1825. Give dates.

44. Tell of La Fayette's visit in 1824.

45. Explain what is meant by the Monroe Doctrine?

46. Tell about the purchase of Louisiana and the cession of Florida.

47. Make a list of presidents as far as studied, with the vice-presidents.

48. What was the cause of the whisky insurrection? Tripolitan War? War of 1812?

49. After studying the events of 1813, write them.

50. Write the form for Madison's Administration. Monroe's.

BLACKBOARD FORM.

Adams,
"The Old Man Eloquent."
- 1825 to 1829.
- 1826 (July 4) { Adams. / Jefferson.
- 1827—Railroad.
- 1828—Protective Tariff.

DIRECTIONS.—1. Read any good sketch of John Q. Adams. 2. Read all you can find in your authors on the tariff question. 3. Read all at hand on the building of railroads. 4. Review Jefferson's Administration. 5. What was the effect upon the South of a high protective tariff? Why?

QUEER QUERIES.

81. What were Jefferson's last words?

82. What body elected John Quincy Adams? Why?

83. What were John Adams's last words?

84. When did Jethro Wood invent his cast-iron plow?

85. What did the people call the tomato as late as 1828?

86. How was the news of the completion of the Erie Canal "telegraphed" from Buffalo to New York in 1825?

87. What was poured into New York Bay when the last gun fired?

88. What kind of rails had the first railroad?

89. What did Washington say when he heard of Arnold's treason?

90. Who laid the corner-stone of Bunker Hill Monument?

WRITTEN REVIEW.

51. Tell all about the steamboat.

52. Write about the war with Tripoli.

53. Give a good account of the events of 1775.

54. Write a full account of the siege of Yorktown.

55. Tell of the duty on tea, 1767; the Boston Tea Party, 1773.

56. Tell where Washington wintered each winter of the war.

57. Tell of the Second Continental Congress and what it did.

58. Tell all about Arnold's treason.

59. Write the form for James Monroe's administration. Events for 1754.

60. How many and what kinds of government in colonial times?

BLACKBOARD FORM.

Jackson, "The Fighting President."

- 1829 to 1837.
- 1831—Monroe.
- 1832
 - Veto.
 - Black Hawk's.
 - Tariff Bill.
 - S. C. Nullification.
 - Asiatic Cholera.
- 1833
 - "Shooting Stars."
 - Hussey's Reaper.
- 1835 to 1842—Florida War.
- 1836—Arkansas.
- 1837—Michigan.

DIRECTIONS.—1. As special topics read the Black Hawk War, South Carolina Nullification, Seminole War, and Bank of the United States. 2. If a life of Davy Crockett can be secured, it would be well to read at least that part of it devoted to the Alamo. 3. Apply the "Set Questions" to this administration.

QUEER QUERIES.

91. Who was Old Hickory?

92. How did Santa Anna select every tenth man out of his one hundred and seventy-eight prisoners for the purpose of shooting them?

93. What did Jackson say he would do with the Nullifiers?

94 Who invented the first reaping machine with sickle-edged sectional bar; protected by guards?

95. When was the first Testament printed for the blind? How can a blind person read from a book?

96. What three ex-Presidents died on the Fourth of July?

97. When John C. Calhoun resigned the vice-presidency in order to lead the Nullification party, what medal was struck and circulated in the South?

98. What did the Indians call Jackson?

99. What did Washington say when told that his death must soon occur?

100. Who shot Tecumseh?

WRITTEN REVIEW.

61. Write a list of States admitted from 1789 to 1837. Give dates and use correct abbreviation.

62. Write the blackboard form for each administra-

tion; if you are certain that you can write certain ones correctly, then omit them.

63. Write causes of the Revolution.

64. Write forms for Georgia.

65. What was our Contitution from 1777 to 1789? Name some of its defects.

66. Name all the wars and rebellions from 1789 to 1837.

67. Write a short history of Black Hawk's war.

68. Who is your State Senator? How chosen? Your U. S. Senators? How chosen? How many U. S. Senators?

69. What nations engaged in American discoveries?

70. Tell all about DeSoto.

Are you keeping your note book at hand while reading, and collecting all the interesting notes possible?

Are you reproducing the blackboard forms daily as you advance?

Are you using your own language to express what you know about the text?

Can you answer all the Queer Queries about the Presidents?

Do you read some larger history than your school edition? Do you do this in order to strengthen the text, or merely for pastime?

Will the word "yes" answer all of the above?

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